Owner's Operator and Maintenance Manual

HMV™ Highly Maneuverable Vehicle

Zoom™ 300 and Zoom™ 400

DEALER: This manual MUST be given to the user of the scooter.

USER: BEFORE using this scooter, read this manual and save for future reference.

For more information regarding Invacare products, parts, and services, please visit www.invacare.com

INVACARE®

Yes, you can.™

⚠ WARNING

POWERED SCOOTER USERS: DO NOT SERVICE OR OPERATE THIS EQUIPMENT WITHOUT FIRST READING AND UNDERSTANDING THE OWNER'S OPERATOR AND MAINTENANCE MANUAL. IF YOU ARE UNABLE TO UNDERSTAND THE WARNINGS, CAUTIONS, AND INSTRUCTIONS, CONTACT INVACARE TECHNICAL SUPPORT BEFORE ATTEMPTING TO SERVICE OR OPERATE THIS EQUIPMENT - OTHERWISE INJURY OR DAMAGE MAY RESULT.

PROCEDURES OTHER THAN THOSE DESCRIBED IN THIS MANUAL MUST BE PERFORMED BY A QUALIFIED TECHNICIAN.

DEALERS AND QUALIFIED TECHNICIANS: DO NOT SERVICE OR OPERATE THIS EQUIPMENT WITHOUT FIRST READING AND UNDERSTANDING (1) THE OWNER'S OPERATOR AND MAINTENANCE MANUAL AND (2) THE SERVICE MANUAL (IF APPLICABLE). IF YOU ARE UNABLE TO UNDERSTAND THE WARNINGS, CAUTIONS AND INSTRUCTIONS, CONTACT INVACARE TECHNICAL SUPPORT BEFORE ATTEMPTING TO SERVICE OR OPERATE THIS EQUIPMENT - OTHERWISE, INJURY OR DAMAGE MAY RESULT.

NOTE: Updated versions of this manual are available on www.invacare.com.

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REGISTER YOUR PRODUCT

The benefits of registering:

1. Safeguard your investment.
2. Ensure long term maintenance and servicing of your purchase.
3. Receive updates with product information, maintenance tips, and industry news.
4. Invacare can contact you or your provider, if servicing is needed on your product.
5. It will enable Invacare to improve product designs based on your input and needs.

Register ONLINE at www.invacare.com
- or -
Complete and mail the form on the next page

Any registration information you submit will be used by Invacare Corporation only, and protected as required by applicable laws and regulations.

PRODUCT REGISTRATION FORM

Register ONLINE at www.invacare.com - or -
Complete and mail this form

Name _____

Address _____

City _____ **State/Province** _____

Zip/Postal Code _____

Email _____ **Phone No.** _____ Fold here

Invacare Model No. _____ **Serial No.** _____

Purchased From _____ **Date of Purchase:** _____

1. Method of purchase: (check all that apply)
❑ Medicare ❑ Insurance ❑ Medicaid ❑ Other _____

2. This product was purchased for use by: (check one)
❑ Self ❑ Parent ❑ Spouse ❑ Other

3. Product was purchased for use at:
❑ Home ❑ Facility ❑ Other

4. I purchased an Invacare product because:
❑ Price ❑ Features (list features) _____

5. Who referred you to Invacare products? (check all that apply)
❑ Doctor ❑ Therapist ❑ Friend ❑ Relative ❑ Dealer/Provider ❑ Other_____
❑ Advertisement (circle one): TV, Radio, Magazine, Newspaper ❑ No Referral_____

6. What additional features, if any, would you like to see on this product?

_____ Fold here

7. Would you like information sent to you about Invacare products that may be available for a particular medical condition? ❑ Yes ❑ No
If yes, please list any condition(s) here and we will send you information by email and/or mail about any available Invacare products that may help treat, care for or manage such condition(s):

_____

8. Would you like to receive updated information via email or regular mail about the Invacare home medical products sold by Invacare's dealers? ❑ Yes ❑ No

9. What would you like to see on the Invacare website?

_____

10. Would you like to be part of future online surveys for Invacare products? ❑ Yes ❑ No

11. User's Year of birth: _____

If at any time you wish not to receive future mailings from us, please contact us at Invacare Corporation, CRM Department, 39400 Taylor Parkway, Elyria, OH 44035, or fax to 877-619-7996 and we will remove you from our mailing list.

To find more information about our products, visit www.invacare.com.

Cut Along Line

Fold here

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BUSINESS REPLY MAIL
FIRST-CLASS MAIL PERMIT NO. 196 ELYRIA OH

POSTAGE WILL BE PAID BY ADDRESSEE

INVACARE CORPORATION
CRM DEPARTMENT
39400 TAYLOR PARKWAY
ELYRIA OH 44035-9836

Fold here

Invacare Product Registration Form

Please Seal with Tape Before Mailing

Cut Along Line

SPECIAL NOTES

WARNING/CAUTION notices as used in this manual apply to hazards or unsafe practices which could result in personal injury or property damage.

NOTICE

THE INFORMATION CONTAINED IN THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE.

As a manufacturer of powered scooters, Invacare endeavors to supply a wide variety of powered scooters to meet many needs of the end user. However, final selection of the type of powered scooter to be used by an individual rests solely with the user and his/her healthcare professional capable of making such a selection.

TIE-DOWN RESTRAINTS AND SEAT RESTRAINTS

Powered scooter users should NOT be transported in vehicles of any kind while in the powered scooter. As of this date, the Department of Transportation has not approved any tie-down systems for transportation of a user while in a powered scooter, in a moving vehicle of any type.

It is Invacare's position that users of powered scooters should be transferred into appropriate seating in vehicles for transportation and use be made of the restraints made available by the auto industry. Invacare cannot and does not recommend any powered scooter transportation systems.

SEAT POSITIONING STRAP

It is the obligation of the Dealers, Therapists and other Healthcare Professionals to determine if a seating restraint is required to ensure the safe operation of this equipment by the user. Serious injury can occur in the event of a fall from a powered scooter.

The seat positioning strap is a positioning belt ONLY. It is not designed for use as a safety device withstanding high stress loads such as auto or aircraft safety belts. If signs of wear appear, belt must be replaced immediately.

TYPICAL PRODUCT PARAMETERS

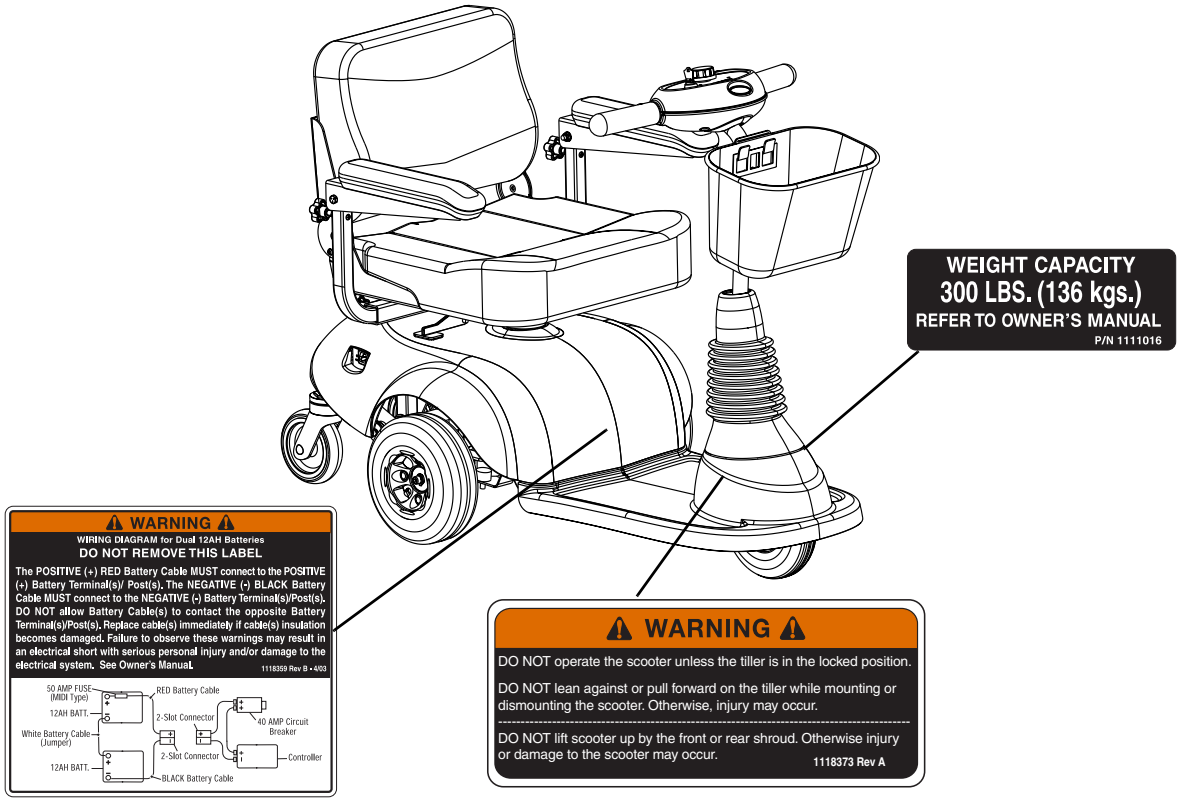
	ZOOM 300	ZOOM 400
OVERALL DIMENSIONS*		
BASE LENGTH:	44 inches	46 inches
BASE WIDTH:	22.5 inches	24 inches
STEP HEIGHT (Floor Pan to Ground):	3.5 inches	4.5 inches
SEAT HEIGHT (Floor Pan to Seat Cushion):	17-19 inches	17-19 inches
SEAT DIMENSIONS		
WIDTH:	16 inches / 18 inches	18 inches / 20 inches
DEPTH:	16, 17, 18 in. / 16, 17, 18 in.	16, 17, 18 in. / 18, 19, 20 in.
BACK HEIGHT:	15 inches / 17 inches	17 inches / 19 inches
ARM DIMENSIONS		
LENGTH:	13 inches	13 inches
HEIGHT BETWEEN SEAT AND ARMS:	7- 9 inches	7- 9 inches
WIDTH BETWEEN ARMS:	16 in. seat — 16-22 inches 18 in. seat — 18-24 inches	18 in. seat — 18-24 inches 20 in. seat — 20-26 inches
SPEED RANGE	0 - 4.5 m.p.h. (Factory setting - 3.5 m.p.h.)	0 - 5.5 m.p.h. (Factory setting - 5.5 m.p.h.)
MAXIMUM WEIGHT LIMITATION	300 lbs	400 lbs
MAXIMUM INCLINE CAPABILITY	8° Grade	8° Grade
WHEELS		
FRONT WHEEL:	7 inches x 2 inches	8 inches x 2 inches
DRIVE WHEEL:	8 inches x 3 inches	10 inches x 3 inches
REAR CASTER:	1 inch x 5 inches	1 inch x 5 inches
TURNING RADIUS	29 inches	32 inches
WEIGHT OF PRODUCT		
FRONT BASE SECTION (WITH BASKET):	N/A	53 lbs
REAR BASE SECTION (WITH SHROUDS):	N/A	48 lbs
ENTIRE BASE SECTION:	71 lbs	
SEAT (WITH ARMS):	31 lbs	38 lbs
BATTERIES (QUANTITY - 2):	18 lbs	46 lbs
TOTAL WEIGHT OF PRODUCT: (Including Batteries)	120 lbs	185lbs

**NOTE: Zoom 300 parameters are based on an 18-inch wide seat.*

**NOTE: Zoom 400 parameters are based on an 20-inch wide seat.*

LABEL LOCATIONS

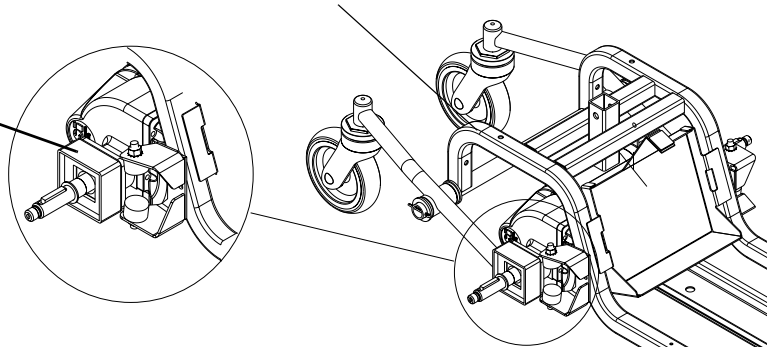
ON ZOOM 300


WEIGHT CAPACITY
300 LBS. (136 kgs.)
REFER TO OWNER'S MANUAL
P/N 1111016
⚠ WARNING ⚠
WIRING DIAGRAM for Dual 12AH Batteries
DO NOT REMOVE THIS LABEL
The POSITIVE (+) RED Battery Cable MUST connect to the POSITIVE (+) Battery Terminal(s)/ Post(s). The NEGATIVE (-) BLACK Battery Cable MUST connect to the NEGATIVE (-) Battery Terminal(s)/Post(s). DO NOT allow Battery Cable(s) to contact the opposite Battery Terminal(s)/Post(s). Replace cable(s) immediately if cable(s) insulation becomes damaged. Failure to observe these warnings may result in an electrical short with serious personal injury and/or damage to the electrical system. See Owner's Manual.
1118359 Rev B • 4/03
50 AMP FUSE (MIDI Type)
12AH BATT.
White Battery Cable (Jumper)
12AH BATT.
RED Battery Cable
2-Slot Connector
2-Slot Connector
40 AMP Circuit Breaker
Controller
BLACK Battery Cable
⚠ WARNING ⚠
DO NOT operate the scooter unless the tiller is in the locked position.
DO NOT lean against or pull forward on the tiller while mounting or dismounting the scooter. Otherwise, injury may occur.
DO NOT lift scooter up by the front or rear shroud. Otherwise injury or damage to the scooter may occur.
1118373 Rev A

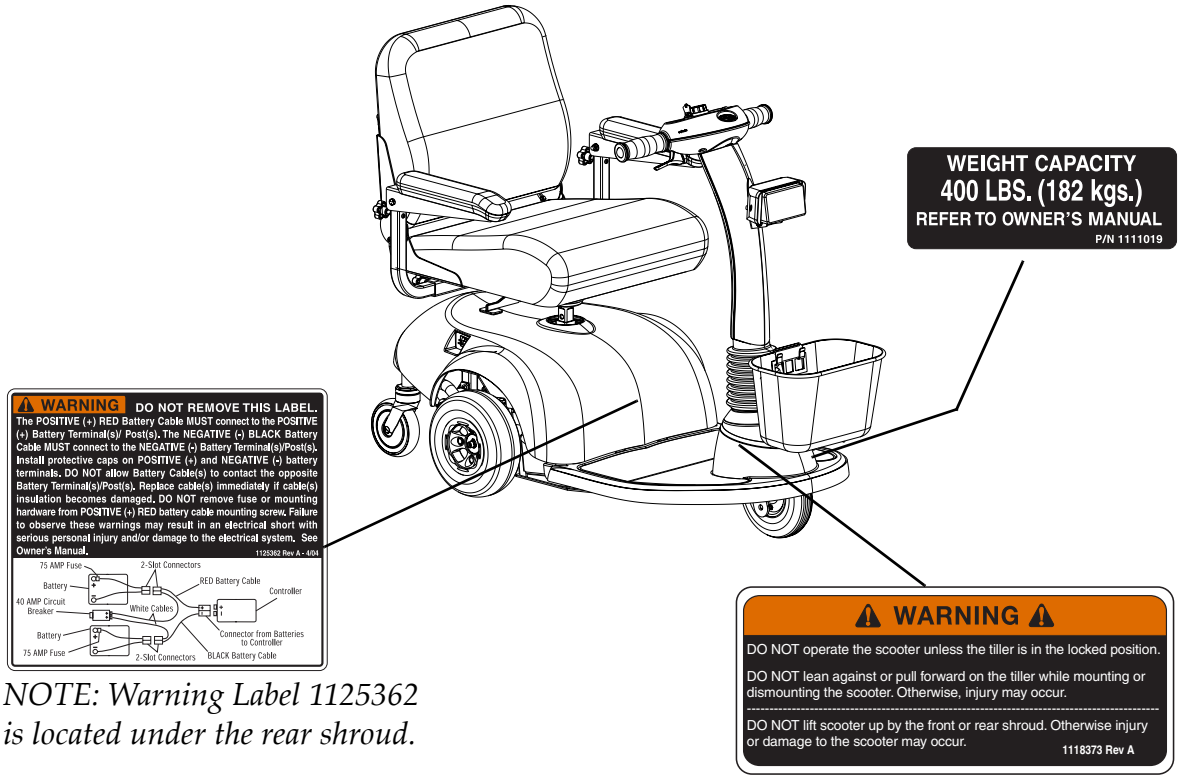
NOTE: Warning Label 1118359 is located under the rear shroud.

NOTE: Warning Label 1079203 is also located on the other swingarm.

Scooter Frame Assembly

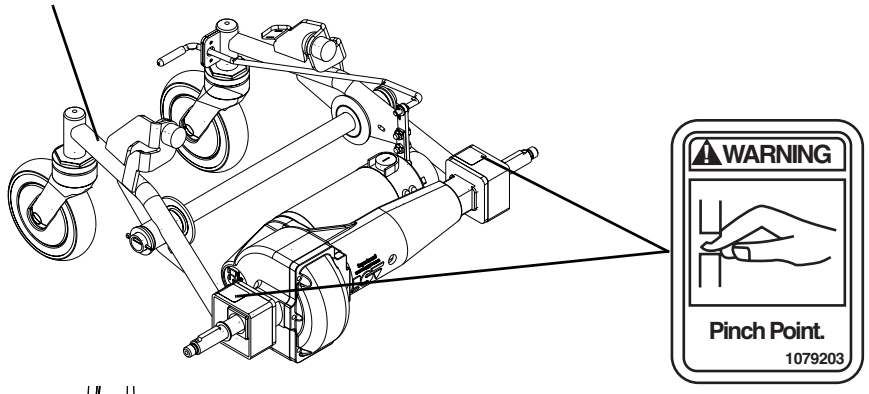


ON ZOOM 400

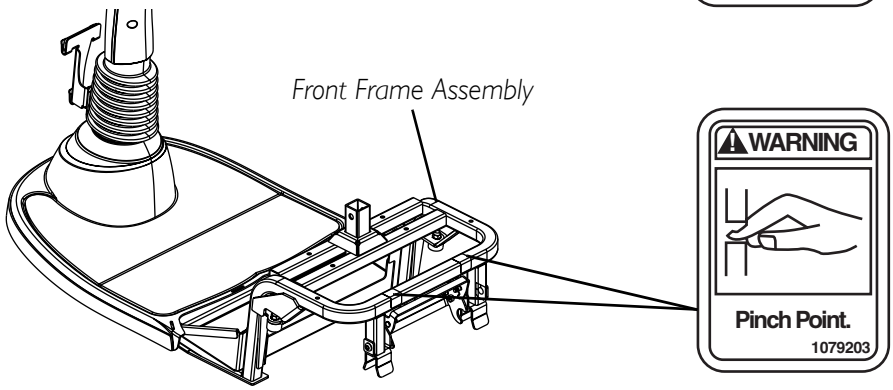

WEIGHT CAPACITY
400 LBS. (182 kgs.)
REFER TO OWNER'S MANUAL
P/N 1111019
WARNING DO NOT REMOVE THIS LABEL.
The POSITIVE (+) RED Battery Cable MUST connect to the POSITIVE (+) Battery Terminal(s)/ Post(s). The NEGATIVE (-) BLACK Battery Cable MUST connect to the NEGATIVE (-) Battery Terminal(s)/Post(s). Install protective caps on POSITIVE (+) and NEGATIVE (-) battery terminals. DO NOT allow Battery Cable(s) to contact the opposite Battery Terminal(s)/Post(s). Replace cable(s) immediately if cable(s) insulation becomes damaged. DO NOT remove fuse or mounting hardware from POSITIVE (+) RED battery cable mounting screw. Failure to observe these warnings may result in an electrical short with serious personal injury and/or damage to the electrical system. See Owner's Manual.
1125362 Rev A - 4/04
75 AMP Fuse
2-Slot Connectors
Battery
RED Battery Cable
Controller
40 AMP Circuit Breaker
White Cables
Battery
Connector from Batteries to Controller
75 AMP Fuse
2-Slot Connectors
BLACK Battery Cable
WARNING
DO NOT operate the scooter unless the tiller is in the locked position.
DO NOT lean against or pull forward on the tiller while mounting or dismounting the scooter. Otherwise, injury may occur.
DO NOT lift scooter up by the front or rear shroud. Otherwise injury or damage to the scooter may occur.
1118373 Rev A

NOTE: Warning Label 1125362 is located under the rear shroud.

Rear Frame Assembly



Front Frame Assembly



SECTION 1—GENERAL GUIDELINES

⚠ WARNING

SECTION 1 - GENERAL GUIDELINES contains important information for the safe operation and use of this product. DO NOT use this product or any available optional equipment without first completely reading and understanding these instructions and any additional instructional material such as Owner's Manuals, Service Manuals or Instruction Sheets supplied with this product or optional equipment. If you are unable to understand the Warnings, Cautions or Instructions, contact a healthcare professional, dealer or technical personnel before attempting to use this equipment - otherwise, injury or damage may occur.

REPAIR OR SERVICE INFORMATION

Set-up of the Electronic Control Unit is to be performed ONLY by individuals certified by Invacare. The final tuning adjustments of the controller may affect other activities of the powered scooter. Damage to the equipment could occur under these circumstances. If non-certified individuals perform any work on these units, the warranty is void.

DO NOT service or adjust your powered scooter while occupied, unless otherwise noted.

OPERATION INFORMATION

For safe product function, material compatibility, proper installation, operation and maintenance, you MUST only use parts, accessories and adapters manufactured or supplied by Invacare. DO NOT use any other parts, accessories, or adapters. Otherwise the warranty is void.

Performance adjustments should only be made by professionals of the healthcare field or persons fully conversant with this process and the driver's capabilities. Incorrect settings could cause injury to the driver, bystanders and damage to the chair and to surrounding property.

BEFORE using the scooter, verify that the motor is plugged into the harness.

DO NOT connect any medical devices such as ventilators, life support machines, etc., to the battery. This could cause unexpected failure of the device and the powered scooter.

DO NOT operate the powered scooter until you have checked that the surroundings are clear and that the area is safe for travel.

DO NOT make sharp turns in the FORWARD or REVERSE direction at excessive speed. Failure to observe the warning can cause the scooter to tip over and may result in injury to user and/or damage to the product.

DO NOT operate on roads, streets or highways.

DO NOT attempt to move up or down an incline with water, ice or oil film.

For Zoom 300 only, avoid operating the scooter in dark or poorly lit areas.

DO NOT climb and/or go UP or DOWN ramps or traverse slopes greater than 8°.

When negotiating ramps, if the throttle control lever is released while in the FORWARD motion, the powered scooter will roll back approximately one (1) foot before the brake engages. If the throttle control lever is released while in the REVERSE motion, the powered scooter will roll back approximately three (3) feet before the brake engages.

DO NOT attempt to drive over curbs or obstacles. Doing so may cause your powered scooter to turn over and cause bodily harm and/or damage to the scooter.

DO NOT use an escalator to move a powered scooter between floors. Serious bodily injury may occur.

Powered scooter without the batteries can weigh between 90 to 200 lbs (depending on the model). Use proper lifting techniques (lift with your legs) to avoid injury.

Before attempting to sit in or exit the powered scooter, remove the key from the ignition. This will ensure that the power is off and the powered scooter will not drive.

DO NOT remove the key or shut off while the powered scooter is in motion.

Remove the key from the ignition while the powered scooter is not in use so as to avoid injury and/or damage to the scooter and surrounding areas.

DO NOT attempt to lift the powered scooter by any removable (detachable) parts. Lifting by means of any removable (detachable) parts of a powered scooter may result in injury to the user or damage to the powered scooter.

DO NOT attempt to lift the powered scooter by its tiller, seat or shrouds.

DO NOT stand on the frame of the powered scooter.

DO NOT stand on the shroud(s) of the powered scooter.

The rear shroud is designed to cover the batteries, controller, harness, motor connections and transaxle. DO NOT operate the powered scooter without the rear shroud installed, to avoid injury and/or damage to scooter.

On Zoom 400 only - BEFORE use, ensure that the frame lock lever is in the LOCKED position securing the front and rear frame assemblies together. Otherwise injury and/or damage may occur.

DO NOT attempt to reach objects if you have to move forward in the seat or pick them up from the floor by reaching between your knees.

DO NOT lean over the top of the back upholstery to reach objects from behind, as this may cause the powered scooter to tip over.

DO NOT shift your weight or sitting position toward the direction you are reaching as the powered scooter may tip over.

For individuals with balance problems, DO NOT attempt to transfer into or out of the powered scooter without assistance. Practice transferring activities with an assistant in the presence of a qualified healthcare professional.

Ensure that the seat is properly locked before use. Otherwise that user may fall from the scooter resulting in bodily harm. Attempting unsafe transfers may cause the user to fall, resulting in serious injury.

Ensure that the seat is locked in the FORWARD position before and during the operation of the scooter. Otherwise, injury to the user and/or damage to the scooter may result.

DO NOT adjust the seat position outside the specifications recommended by the manufacturer.

Ensure that the tiller is properly adjusted before driving the scooter.

After making any tiller angle adjustment and before use, the tiller must be securely locked into position. Otherwise that user may fall from the scooter resulting in bodily harm and/or damage to the scooter. Gently push/pull the tiller to ensure that the tiller is securely engaged.

DO NOT overtighten hardware attaching to the frame. This could cause damage to the frame tubing.

Do determine and establish your particular safety limits by practicing bending, reaching and transferring activities in the presence of a qualified healthcare professional BEFORE attempting active use of the powered scooter.

ALWAYS DO keep hands and fingers clear of moving parts to avoid injury.

ALWAYS DO wear your seat positioning strap.

The seat positioning strap is a positioning belt ONLY. It is not designed for use as a safety device withstanding high stress loads such as auto or aircraft safety belts. If signs of wear appear, belt must be replaced immediately.

ALWAYS DO check hand grips for looseness before using the powered scooter. If loose and/or worn, replace immediately.

Avoid storing or using the scooter near external flame or combustible products. Serious injury or damage to property may result.

TIRE PRESSURE

DO NOT use your powered scooter unless it has the proper tire pressure (P.S.I.). DO NOT overinflate the tires. Failure to follow these recommendations may cause the tire to explode and cause bodily harm. The recommended tire pressure is listed on the side wall of the tire.

ELECTRICAL

Check to ensure that all electrical connections are secure at all times.

GROUNDING INSTRUCTIONS

DO NOT, under any circumstances, cut or remove the round grounding prong from any plug used with or for Invacare products. Some devices are equipped with three-prong (grounding) plugs for protection against possible shock hazards. Where a two-prong wall receptacle is encountered, it is the personal responsibility and obligation of the customer to contact a qualified electrician and have the two-prong receptacle replaced with a properly grounded three-prong wall receptacle in accordance with the National Electrical Code. If you must use an extension cord, use ONLY a three-wire extension cord having the same or higher electrical rating as the device being connected. In addition, Invacare has placed RED/ORANGE WARNING TAGS on some equipment. DO NOT remove these tags.

BATTERIES

The warranty and performance specifications contained in this manual are based on the use of deep cycle gel cell batteries. Invacare strongly recommends their use as the power source for this unit.

Carefully read battery/battery charger information prior to installing, servicing or operating your powered scooter.

RAIN TEST

INVACARE has tested its powered scooters in accordance with ISO 7176 "Rain Test". This provides the end user or his/her attendant sufficient time to remove his/her power powered scooter from a rain storm and retain powered scooter operation.

DO NOT leave the powered scooter in a rain storm of any kind.

DO NOT use the powered scooter in a shower.

DO NOT leave the powered scooter in a damp area for any length of time.

Direct exposure to rain or dampness will cause the scooter to malfunction electrically and mechanically; may cause the wheelchair to prematurely rust.

Check to ensure that the battery covers are secured in place and that all electrical connections are secure at all times.

WEIGHT TRAINING

Invacare **DOES NOT** recommend the use of its powered scooters as a weight training apparatus. Invacare powered scooters have **NOT** been designed or tested as a seat for any kind of weight training. If occupant uses said powered scooter as a weight training apparatus, **INVACARE SHALL NOT BE LIABLE FOR BODILY INJURY AND THE WARRANTY IS VOID**.

WEIGHT LIMITATION

The weight limitation for the Zoom 300 is 300 lbs.

The weight limitation for the Zoom 400 is 400 lbs.

If so equipped, the front basket is rated for a maximum loading capacity of 10 lbs.

SECTION 2—EMI INFORMATION

⚠ WARNING

CAUTION: IT IS VERY IMPORTANT THAT YOU READ THIS INFORMATION REGARDING THE POSSIBLE EFFECTS OF ELECTROMAGNETIC INTERFERENCE ON YOUR POWERED WHEELCHAIR.

Electromagnetic Interference (EMI) From Radio Wave Sources

Powered wheelchairs and motorized scooters (in this text, both will be referred to as powered wheelchairs) may be susceptible to electromagnetic interference (EMI), which is interfering electromagnetic energy (EM) emitted from sources such as radio stations, TV stations, amateur radio (HAM) transmitters, two way radios, and cellular phones. The interference (from radio wave sources) can cause the powered wheelchair to release its brakes, move by itself, or move in unintended directions. It can also permanently damage the powered wheelchair's control system. The intensity of the interfering EM energy can be measured in volts per meter (V/m). Each powered wheelchair can resist EMI up to a certain intensity. This is called its "immunity level." The higher the immunity level, the greater the protection. At this time, current technology is capable of achieving at least a 20 V/m immunity level, which would provide useful protection from the more common sources of radiated EMI.

There are a number of sources of relatively intense electromagnetic fields in the everyday environment. Some of these sources are obvious and easy to avoid. Others are not apparent and exposure is unavoidable. However, we believe that by following the warnings listed below, your risk to EMI will be minimized.

The sources of radiated EMI can be broadly classified into three types:

1) **Hand-held Portable transceivers (transmitters-receivers with the antenna mounted directly on the transmitting unit. Examples include: citizens band (CB) radios, "walkie talkie", security, fire and police transceivers, cellular telephones, and other personal communication devices).**

NOTE: Some cellular telephones and similar devices transmit signals while they are ON, even when not being used.

2) **Medium-range mobile transceivers, such as those used in police cars, fire trucks, ambulances and taxis. These usually have the antenna mounted on the outside of the vehicle; and**

3) **Long-range transmitters and transceivers, such as commercial broadcast transmitters (radio and TV broadcast antenna towers) and amateur (HAM) radios.**

NOTE: Other types of hand-held devices, such as cordless phones, laptop computers, AM/FM radios, TV sets, CD players, cassette players, and small appliances, such as electric shavers and hair dryers, so far as we know, are not likely to cause EMI problems to your powered wheelchair.

⚠ WARNING

Powered Wheelchair Electromagnetic Interference (EMI)

Because EM energy rapidly becomes more intense as one moves closer to the transmitting antenna (source), the EM fields from hand-held radio wave sources (transceivers) are of special concern. It is possible to unintentionally bring high levels of EM energy very close to the powered wheelchair's control system while using these devices. This can affect powered wheelchair movement and braking. Therefore, the warnings listed below are recommended to prevent possible interference with the control system of the powered wheelchair.

Electromagnetic interference (EMI) from sources such as radio and TV stations, amateur radio (HAM) transmitters, two-way radios, and cellular phones can affect powered wheelchairs and motorized scooters.

FOLLOWING THE WARNINGS LISTED BELOW SHOULD REDUCE THE CHANCE OF UNINTENDED BRAKE RELEASE OR POWERED WHEELCHAIR MOVEMENT WHICH COULD RESULT IN SERIOUS INJURY.

1) **Do not operate hand-held transceivers (transmitters receivers), such as citizens band (CB) radios, or turn ON personal communication devices, such as cellular phones, while the powered wheelchair is turned ON;**
2) **Be aware of nearby transmitters, such as radio or TV stations, and try to avoid coming close to them;**
3) **If unintended movement or brake release occurs, turn the powered wheelchair OFF as soon as it is safe;**
4) **Be aware that adding accessories or components, or modifying the powered wheelchair, may make it more susceptible to EMI (NOTE: There is no easy way to evaluate their effect on the overall immunity of the powered wheelchair); and**
5) **Report all incidents of unintended movement or brake release to the powered wheelchair manufacturer, and note whether there is a source of EMI nearby.**

Important Information

1) **20 volts per meter (V/m) is a generally achievable and useful immunity level against EMI (as of May 1994) (the higher the level, the greater the protection);**
2) **This device has been tested to a radiated immunity level of 20 V/m.**

Modification of any kind to the electronics of this wheelchair as manufactured by Invacare may adversely affect the RFI immunity levels.

SECTION 3—SAFETY/HANDLING OF POWERED SCOOTERS

"Safety and Handling" of the powered scooter requires the close attention of the user. This manual points out the most common procedures and techniques involved in the safe operation and maintenance. It is important to practice and master these safe techniques until you are comfortable in maneuvering the powered scooter.

Use this information only as a "basic" guide. The techniques that are discussed have been used successfully by many. Individual users often develop skills to deal with daily living activities that may differ from those described in this manual. Invacare recognizes and encourages each individual to try what works best for him/her in overcoming obstacles that they may encounter; however, ALL WARNINGS and CAUTIONS given in this manual MUST be followed. Techniques in this manual are a starting point for the new powered scooter user with "safety" as the most important consideration for all.

STABILITY AND BALANCE

⚠ WARNING

DO NOT make sharp turns in the forward or reverse direction at excessive speed. Failure to observe the warning can cause the scooter to tip over and may result in injury to user and/ or damage to the product.

ALWAYS wear your seat positioning strap.

The seat positioning strap is a positioning belt ONLY. It is not designed for use as a safety device withstanding high stress loads such as auto or aircraft safety belts. If signs of wear appear, belt must be replaced immediately.

To assure stability and proper operation of your powered scooter, you MUST, at all times, maintain proper balance. Your powered scooter has been designed to remain upright and stable during normal daily activities.

PERCENTAGE OF WEIGHT DISTRIBUTION

⚠ WARNING

DO NOT attempt to reach objects if you have to move forward in the seat or pick them up from the floor by reaching down between your knees.

Many activities require the powered scooter owner to reach, bend and transfer IN and OUT of the powered scooter. These movements cause a change to the normal balance, the center of gravity, and the weight distribution of the powered scooter. To determine and establish your particular safety limits, practice bending, reaching and transferring activities in several combinations in the presence of a qualified healthcare professional BEFORE attempting active use of the powered scooter.

Proper positioning is essential for your safety.

STAIRWAYS

⚠ WARNING

DO NOT attempt to move an occupied powered scooter between floors using a stairway. Use an elevator to move an occupied powered scooter between floors.

If moving a powered scooter between floors by means of a stairway, the occupant MUST be removed and transported independently of the powered scooter. Extreme caution is advised when it is necessary to move an UNOCCUPIED powered scooter up or down the stairs. Invacare recommends disassembling the scooter and transporting the components (five [5] components on Zoom 300 and six [6] components on Zoom 400) independently UP or DOWN the stairs. ONLY use secure, non-detachable parts on each component for hand-hold supports.

DO NOT attempt to lift a powered scooter by any removable (detachable) parts. Lifting by means of removable (detachable) parts may result in injury to the user or assistants or damage to the powered scooter.

ESCALATORS

⚠ WARNING

DO NOT use an escalator to move a powered scooter between floors. Serious bodily injury may occur.

Powered scooter without the batteries can weigh between 90 to 200 lbs (depending on the model). Use proper lifting techniques (lift with your legs) to avoid injury.

Follow this procedure for moving the powered scooter between floors when an elevator is NOT available:

1. Remove the occupant from the powered scooter.
2. Disassemble the scooter. Refer to Transporting the Scooter on page 60.
3. Carefully move the powered scooter components up or down the stairway.
4. Once all the components of the scooter are transported to the desired location reassemble the scooter. Refer to Transporting the Scooter on page 60.

SECTION 4—SAFETY INSPECTION

NOTE: Every six (6) months take your powered scooter to a qualified technician for a thorough inspection and servicing. Regular cleaning will reveal loose or worn parts and enhance the smooth operation of your powered scooter. To operate properly and safely, your powered scooter must be cared for just like any other vehicle. Routine maintenance will extend the life and efficiency of your powered scooter.

⚠ WARNING

Before performing any maintenance, adjustment or service, turn power OFF and remove key from ignition.

△ CAUTION

As with any vehicle, the wheels and tires should be checked periodically for cracks and wear, and should be replaced.

SAFETY INSPECTION CHECKLISTS

Initial adjustments should be made to suit your personal body structure needs and preference. Thereafter follow these maintenance procedures:

INSPECT/ADJUST INITIALLY

- ❑ Ensure powered scooter drives straight (no excessive drag or pull to one side).
- ❑ Check frame for damage and corrosion.
- ❑ Ensure that the brake release lever is easy to engage/disengage.
- ❑ Ensure that tiller adjustment handle engages and disengages properly and securely.
- ❑ Ensure that the scooter stops completely when throttle is released (i.e., does not continue to roll as if the throttle is activated).
- ❑ Clean upholstery and armrests.
- ❑ Ensure adjustable height arms operate and lock securely.
- ❑ Ensure armrest pad sits flush against arm tube.
- ❑ Inspect the seat upholstery for rips and tears.
- ❑ Inspect seat swivel for release and engagement (seat locks into the determined swivel positions).
- ❑ Inspect for excessive side movement or binding when the drive wheels are raised or turned.
- ❑ Inspect front wheel/fork assembly for proper tension by spinning the wheel. The front wheel should come to a gradual stop.
- ❑ Check the front fork for damage or corrosion.

- ❑ Tighten locknut if the front wheel wobbles noticeably or loosen locknut if the wheel binds to a stop.
- ❑ Ensure that the fork stem bearing set is tight.
- ❑ Ensure that wheel bearings are clean and free of moisture.
- ❑ Ensure that the bolts and fasteners on the caster assemblies are tight.
- ❑ Inspect caster assembly for proper tension by spinning the caster. The caster should come to a gradual stop.
- ❑ Inspect tires for flat spots and wear.
- ❑ Clean molded body shrouds.

INSPECT/ADJUST WEEKLY

- ❑ Ensure that tiller adjustment lever engages and disengages properly and securely.
- ❑ Ensure that the scooter stops completely when throttle is released (i.e., does not continue to roll as if the throttle is activated).
- ❑ Inspect tires for flat spots and wear.

INSPECT/ADJUST MONTHLY

- ❑ Check brake for binding or interference with travel.
- ❑ Inspect front wheel/fork assembly for proper tension by spinning the wheel. The front wheel should come to a gradual stop.
- ❑ Tighten locknut if the front wheel wobbles noticeably or loosen locknut if the wheel binds to a stop.
- ❑ Ensure that the fork stem bearing set is tight.
- ❑ Inspect seat swivel for release and engagement (seat locks into the determined swivel positions).
- ❑ Inspect the seat positioning strap for signs of wear. Replace if worn or damaged.
- ❑ Ensure that the buckle on the seat positioning strap latches. Replace if necessary.
- ❑ Verify that the hardware that attaches the seat positioning strap to the seat frame is secure and undamaged. Replace if necessary.
- ❑ Ensure that the bolts and fasteners on the caster assemblies are tight.
- ❑ Inspect caster assembly for proper tension by spinning the caster. The caster should come to a gradual stop.

INSPECT/ADJUST EVERY SIX (6) MONTHS

- ❑ Lubricate the top of the seat using a Teflon® lubricant.

INSPECT/ADJUST PERIODICALLY

- ❑ Ensure that the powered scooter drives straight (no excessive drag or pull to one side).
- ❑ Check frame for damage and corrosion.
- ❑ Ensure that the brake is easy to engage/disengage.
- ❑ Inspect for no excessive side movement or binding when the drive wheels are raised or turned.
- ❑ Check front fork for damage or corrosion.
- ❑ Ensure wheel bearings are clean and free of moisture.
- ❑ Clean upholstery and armrests.
- ❑ Inspect the seat upholstery for rips and tears.
- ❑ Ensure adjustable height arms operate and lock securely.
- ❑ Ensure armrest pad sits flush against arm tube.

SECTION 5—MAINTENANCE AND TROUBLESHOOTING

⚠ WARNING

After ANY adjustments, repair or service and BEFORE use, make sure that all attaching hardware is tightened securely - otherwise, injury or damage may occur.

Before performing any maintenance, adjustment or service, turn power OFF and remove key from ignition.

DO NOT overtighten hardware attaching to the frame. This could cause damage to the frame.

When storing scooter for prolonged periods of time, remove batteries. Refer to Removing/Installing the Batteries on Zoom 300 on page 50 OR Removing/Installing the Batteries on Zoom 400 on page 53. After reinstallation, always recharge batteries before use. Refer to Charging the Batteries on page 58.

Use care in storage. DO NOT allow any metallic objects to contact the exposed terminals.

SUGGESTED MAINTENANCE PROCEDURES

1. Before using the powered scooter, make sure all nuts and bolts are tight. Check any parts for damage or wear and replace. Check all parts for proper adjustment.
2. Ensure that batteries are properly maintained and charged as required.
3. The wheels and tires should be checked periodically for cracks and wear, and should be replaced by a qualified technician.
4. Regularly check for loose nuts and/or bolts in the front and drive wheels. If loose, have them adjusted by a qualified technician.
5. Clean dirt, dust and grease from exposed components.
6. Periodically have the bearings of the front wheel checked to make sure they are clean and free from moisture.

LUBRICATION POINTS

NOTE: For this procedure, refer to FIGURE 5.1.

1. Every six (6) months, lubricate the top of the seat post using a Teflon lubricant.

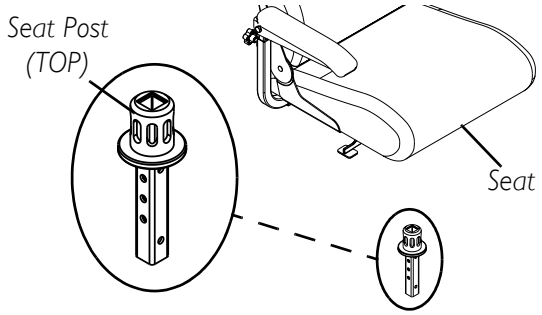


FIGURE 5.1 - LUBRICATION POINTS

TROUBLESHOOTING

SYMPTOM	PROBABLE CAUSE	SOLUTION
LIMITED DRIVING DISTANCE.	Battery not charged long enough. Batteries weak, won't hold charge.	Charge batteries overnight or ensure eight (8) hours of charge between use. Replace batteries. Refer to Removing/ Installing the Batteries on Zoom 300 on page 50 OR Removing/Installing the Batteries on Zoom 400 on page 53.
BATTERIES NOT CHARGING.	Charger not working. Battery connections loose. No current at wall outlet. Bad connection on charger, charger cable, plug or internal wiring problem.	Replace charger. Contact Dealer or a qualified technician. Check all connections. Secure connections. Refer to Removing/Installing the Batteries on Zoom 300 on page 50 OR Removing/ Installing the Batteries on Zoom 400 on page 53. Switch another wall outlet. Replace charger or internal repairs required. Contact Dealer or a qualified technician.
BATTERIES DRAW EXCESSIVE CURRENT WHEN CHARGING.	Battery failure.	Replace batteries. Refer to Removing/ Installing the Batteries on Zoom 300 on page 50 OR Removing/Installing the Batteries on Zoom 400 on page 53.
BATTERY INDICATOR SHOWS THE CHARGE LEVEL IS LOW - TOO SOON AFTER BEING RECHARGED.	Charger not working. Weak batteries.	Have charger checked. Service or replace the charger. Contact Dealer or a qualified technician. Replace batteries. Refer to Removing/ Installing the Batteries on Zoom 300 on page 50 OR Removing/Installing the Batteries on Zoom 400 on page 53.
SCOOTER WILL NOT DRIVE.	Brake release lever disengaged. Batteries require charging. Key not fully plugged in. Charger plugged in. Circuit breaker tripped. Soft stop engaged. If key is turned off while driving, the scooter holds power for 1.5 seconds slowly decelerating to a stop.	Engage brake release lever. Refer to Brake Release Lever on page 31. Charge batteries. Refer to Charging the Batteries on page 58. Ensure key is inserted fully into keyswitch. Unplug charger from scooter. Reset breaker. Refer to Resetting the Circuit Breaker on page 32. If breaker trips again, it may indicate need for internal repairs. Contact Dealer or a qualified technician. With key in the off position, wait for 30 seconds and turn key to the on position.

SECTION 6—OPERATION OF THE POWERED SCOOTER

CONTROL PANEL

NOTE: For the following information, refer to FIGURE 6.1 and FIGURE 6.2.

1. SPEED CONTROL KNOB - Located on the TOP face of the control panel. The Turtle icon represents the slowest speed and the Rabbit icon represents the fastest speed (FIGURE 6.1).
2. BATTERY CHARGE INDICATOR (BCI) - The BCI is located on the TOP face of the control panel as shown in FIGURE 6.1. The BCI is composed of eight (8) LED's - three (3) GREEN, three (3) YELLOW and two (2) RED. It provides information on the remaining battery charge. At full charge, all eight (8) LED's are lit. As the batteries discharged, the number of LED's decrease from GREEN to YELLOW then RED. At this level, the user should charge the batteries as soon as possible. Refer to the table on the next page.

NOTE: The number of LED's bars may decrease when driving over uneven surfaces even with batteries fully charged. To see an accurate true reading, insert the key and turn to the ON position while the powered scooter is stationary.

⚠ WARNING

When negotiating ramps, if the throttle control lever is released while in FORWARD motion, the powered scooter will ROLL BACK approximately one (1) foot before brake engages. If the throttle control lever is released while in REVERSE motion the powered scooter will ROLL BACK approximately three (3) feet before brake engages.

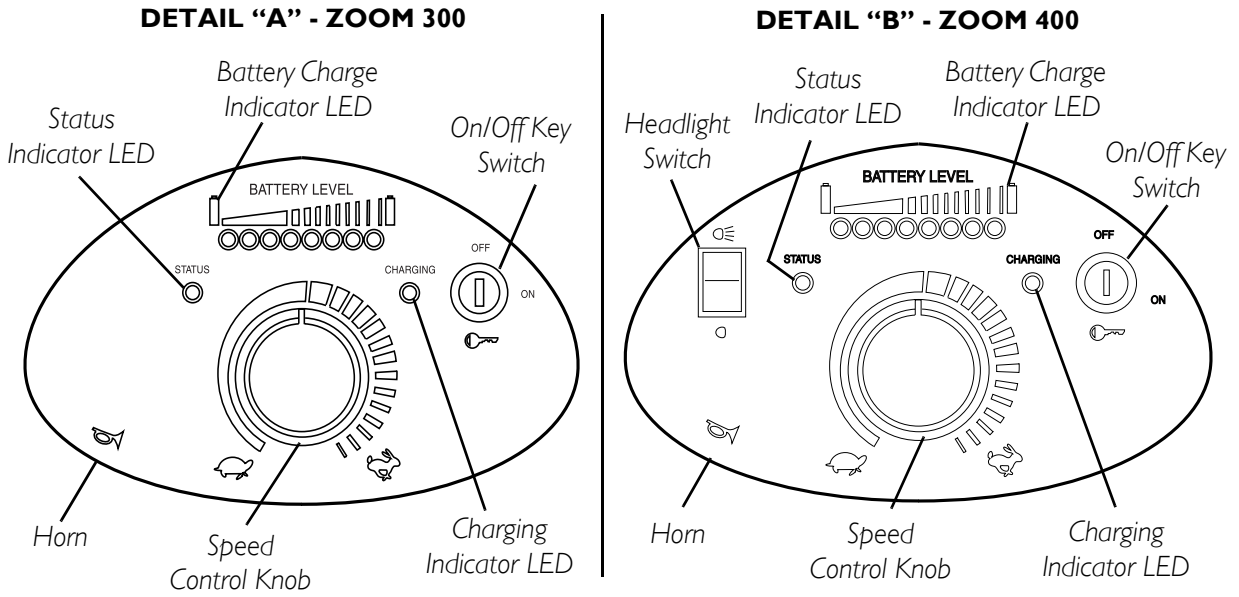


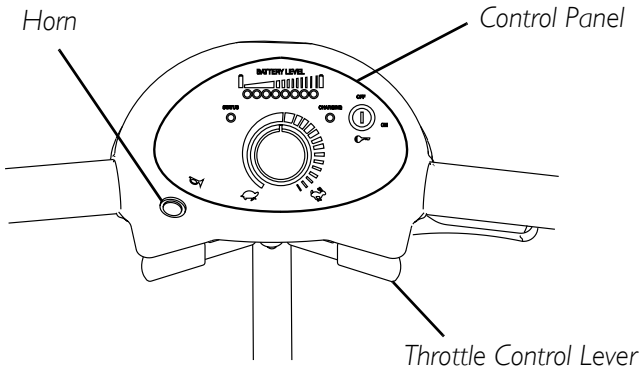
FIGURE 6.1 - CONTROL PANEL

3. CHARGING INDICATOR - Located on the TOP face of the control panel as shown in FIGURE 6.1. Solid RED indicates the charger is on (plugged into wall receptacle).
4. STATUS INDICATOR - Located on the TOP face of the control panel as shown in FIGURE 6.1. Status LED will flash intermittently, separated by a pause, to provide diagnostic information. Refer to the following table.

NUMBER OF FLASHES	FAULT	IMPACT ON SCOOTER	NOTES
1	Battery needs recharging.	Will Drive	Battery charge is running low. Recharge the batteries as soon as possible.
2	Battery voltage too low.	Drive Inhibited	Battery charge is empty. Recharge the batteries. If the scooter is left off for a few minutes, battery charge may recover sufficiently to allow driving for a short period of time.
3	Battery voltage too high.	Drive Inhibited	Battery charge is too high. Scooter will charge batteries when traveling down slopes or decelerating. Excessive charging in this manner may cause this fault. Turn the scooter power off and then back on again.
4	Current limit time-out.	Drive Inhibited	The scooter has drawn too much current for too long, possibly because the motor has been over-worked, jammed or stalled. Turn the scooter power off and then turn back on again after a few minutes.
5	Brake fault.	Drive Inhibited	Check that the brake release lever is in the engaged position. The park brake coil or wiring is faulty. Check the park brake and wiring for open or short circuit.

NUMBER OF FLASHES	FAULT	IMPACT ON SCOOTER	NOTES
6	Out of Neutral at power up.	Drive Inhibited	Throttle is not in neutral position when turning the key switch on. Return the throttle to neutral, turn power off and back on again. Throttle may need to be re-calibrated.
7	Speed Pot error.	Drive Inhibited	The throttle or its wiring is faulty. Check for open or short circuits.
8	Motor volts error.	Drive Inhibited	The motor or its wiring is faulty. Check for open or short circuits.
9	Other internal errors.	Drive Inhibited	Call Dealer or a qualified technician.

5. HEADLIGHT SWITCH - Located on the TOP face of the control panel of Zoom 400 only. Refer to Detail "B" of FIGURE 6.1.
6. ON/OFF KEY SWITCH - Located on RIGHT side of the control panel (FIGURE 6.1).
7. HORN SWITCH - Located on the FRONT face of the control panel towards the LEFT (FIGURE 6.2).
8. THROTTLE CONTROL LEVER - Located below control panel (FIGURE 6.2).



NOTE: Location of Throttle Control Lever and Horn on Zoom 300 shown. Location of Throttle Control Lever and Horn is the same on Zoom 400.

FIGURE 6.2 - CONTROL PANEL - HORN AND THROTTLE CONTROL LEVER

OPERATING THE SCOOTER

⚠ WARNING

After ANY adjustments, repair or service and BEFORE use, make sure that all attaching hardware is tightened securely - otherwise injury or damage may result.

DO NOT make sharp turns in the forward or reverse direction at excessive speed. Failure to observe the warning can cause the scooter to tip over and may result in injury to user and/ or damage to the product.

To determine and establish your particular safety limits, practice bending, reaching and transferring activities in several combinations in the presence of a qualified healthcare professional BEFORE attempting active use of the powered scooter.

Ensure seat is properly locked before attempting transfer into or out of the powered scooter. Attempting unsafe transfers may cause a fall from the powered scooter resulting in bodily injury.

For individuals with balance problems, practice transferring activities WITH AN ASSISTANT in the presence of a qualified healthcare professional. DO NOT attempt to transfer into or out of the powered scooter without assistance.

1. Before operation of the powered scooter, review Control Panel on page 27.
2. Install and charge batteries. Refer to Removing/Installing the Batteries on Zoom 300 on page 50, Removing/Installing the Batteries on Zoom 400 on page 53 and Charging the Batteries on page 58.
3. Transferring to and from the seat can be accomplished in one (1) of two (2) ways:
   A. Flipping UP the armrest makes entering/exiting easier.
   B. Rotate seat to the direction of transfer. Refer to 90° Seat Swivel Adjustment on page 37.
4. Once the seat is locked in the forward-facing position and both armrests are in the DOWN position, adjust the tiller to a comfortable angle. Refer to Adjusting the Tiller Angle on page 43.
5. Adjust speed control knob to the appropriate setting.

NOTE: For driving indoors or on uneven terrain, a slower speed is recommended. For soft terrain or steep inclines (no greater than 8°), a faster speed may be necessary.

6. Insert the key into the ignition and turn it to the ON position.

⚠ WARNING

ALWAYS depress the throttle control lever gradually. This will ensure smooth safe starts.

NOTE: Throttle control levers operate such that moving one (1) will also move the opposite side throttle control lever.

7. To operate the scooter, depress the throttle control lever in the following manner:
   A. TO MOVE FORWARD - Push the RIGHT side throttle control lever FORWARD (away from user) or pull the LEFT side throttle control lever REARWARD (towards user).
   B. TO MOVE IN REVERSE - Push the LEFT side throttle control lever FORWARD (away from user) or pull the RIGHT side throttle control lever REARWARD (towards user).
   C. TO STOP - Release the throttle control lever and the powered scooter will quickly slow down and the brake will engage.

NOTE: To equip the scooter for LEFT hand operation, contact a qualified technician.

The powered scooter is equipped with a "proportional" control meaning that the farther you depress the throttle control lever, the faster the powered scooter travels. With a proportional control, you can drive as slowly in the high speed setting as you can in the low speed setting. Your top speed, however, is limited by the setting of the speed-control knob. For safety reasons, reverse speed is limited to approximately 50% of forward speed.

When first learning to drive, adjust speed control knob for a SLOW speed and try to drive the powered scooter AS SLOWLY as possible by depressing the throttle control lever only slightly. This exercise will help you learn to utilize the full potential of the proportional control and allow you to start and stop smoothly.

BRAKE RELEASE LEVER

⚠ WARNING

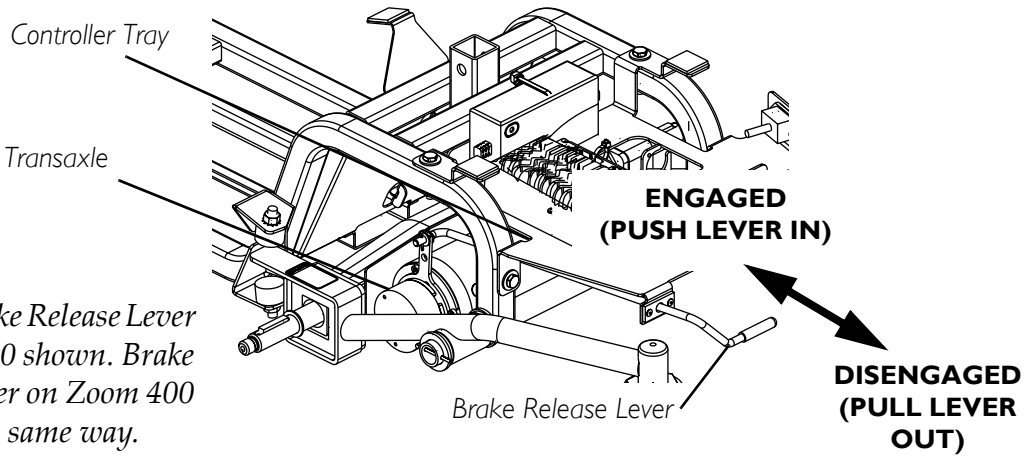
Ensure that the brake-release lever is in the ENGAGED position before driving. There should be an audible "click" when stopping and starting.

NOTE: For the following information, refer to FIGURE 6.3.

The brake release lever manually engages and disengages the brake. The brake release lever is located under the shroud near the LEFT caster assembly.

The brake MUST be ENGAGED (lever pushed IN) in normal driving conditions. Activation of the throttle control lever automatically releases the brake so that the powered scooter can drive. Releasing the throttle control lever automatically engages the brake so as to prevent the powered scooter from rolling on its own.

When the brake release lever is DISENGAGED (lever pulled OUT) and the key is removed, the powered scooter can be pushed. The powered scooter CANNOT be driven with the brake in the DISENGAGED (lever pulled OUT) position.



NOTE: Brake Release Lever on Zoom 300 shown. Brake Release Lever on Zoom 400 operates the same way.

FIGURE 6.3 - BRAKE RELEASE LEVER

RESETTING THE CIRCUIT BREAKER

⚠ WARNING

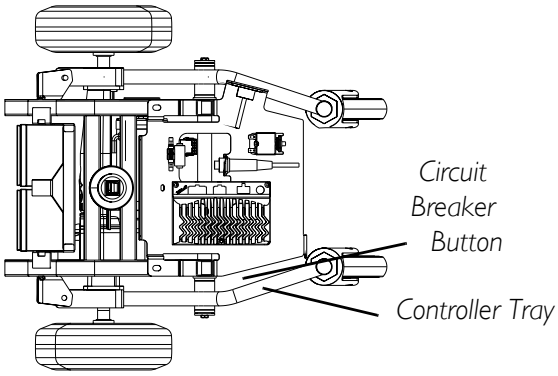
NEVER defeat or bypass the circuit breaker. ONLY replace with a circuit breaker of the same rating.

NOTE: Key must be removed from ignition before resetting circuit breaker.

NOTE: For this procedure, refer to FIGURE 6.4.

1. Remove seat. Refer to Removing/Installing the Seat on page 34.
2. Remove rear shroud. Refer to Removing/Installing the Rear Shroud on page 44.
3. To reset, press circuit breaker button located on the controller tray.
4. Reverse STEPS 1 and 2 to reassemble the powered scooter.

DETAIL "A" - ZOOM 300



DETAIL "B" - ZOOM 400

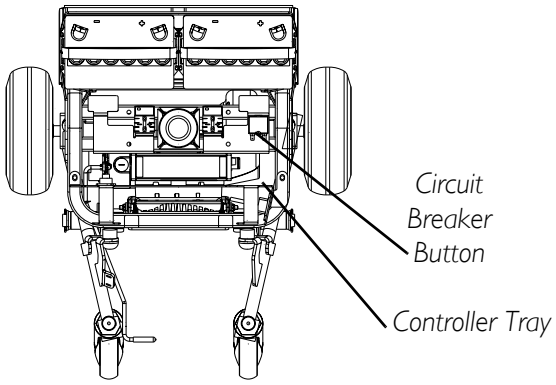


FIGURE 6.4 - RESETTING THE CIRCUIT BREAKER

REPLACING THE FUSE

⚠ WARNING

NEVER defeat or bypass any fuse. ONLY replace with a fuse of the same rating.

NOTE: For this procedure, refer to FIGURE 6.5.

1. Remove seat. Refer to Removing/Installing the Seat on page 34.
2. Remove rear shroud. Refer to Removing/Installing the Rear Shroud on page 44.

NOTE: Two (2) fuse holders are located on the wiring harness.

NOTE: Replace existing blown fuse with a new fuse of the same rating.

3. Pull fuse OUT and install new fuse.
4. Reverse STEPS 1 and 2 to reassemble the powered scooter.

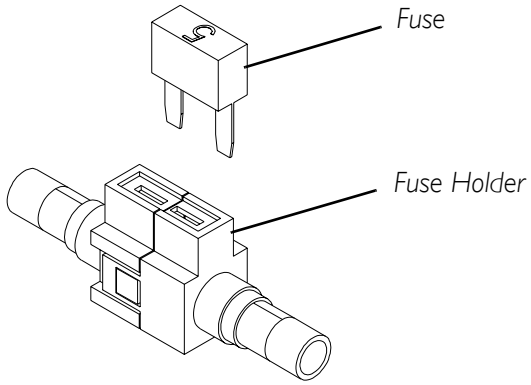


FIGURE 6.5 - REPLACING THE FUSE

SECTION 7—SEAT

⚠ WARNING

After ANY adjustments, repair or service and BEFORE use, make sure that all attaching hardware is tightened securely - otherwise injury or damage may result.

Before performing any maintenance, adjustment or service, turn power OFF and remove key from ignition.

REMOVING/INSTALLING THE SEAT

NOTE: For this procedure, refer to FIGURE 7.1.

REMOVING

1. Fold down seat back.
2. Pulling UP on the seat lever, lift the seat assembly UP and away from the seat post.

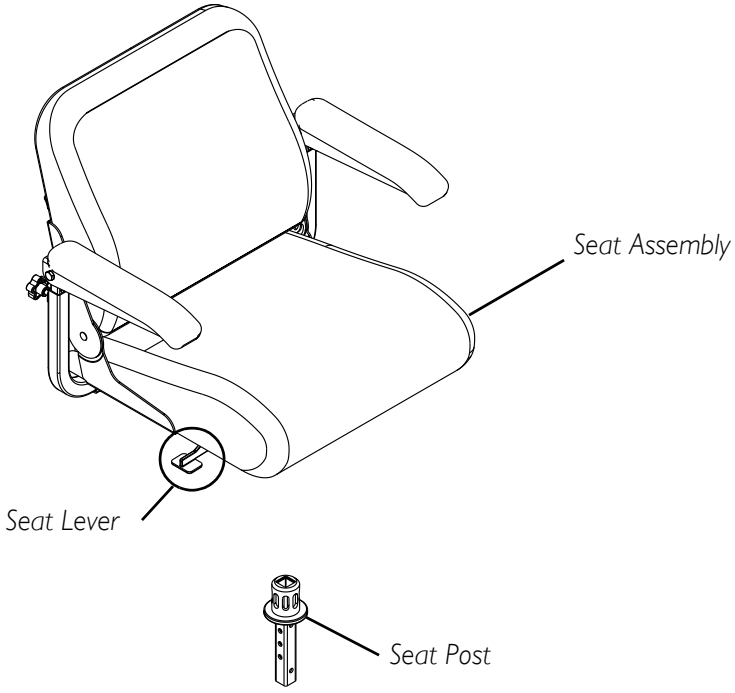


FIGURE 7.1 - REMOVING/INSTALLING THE SEAT

INSTALLING

1. Pulling UP on the seat lever, lower the seat assembly onto the seat post.

NOTE: If necessary, slightly twist seat assembly back and forth to lock in place.

2. Release seat lever and lift UP on seat assembly to ensure the seat is secure.

REMOVING/INSTALLING THE SEAT POST

⚠ WARNING

Ensure that the seat post mounting screw is properly engaged and locked. Otherwise, injury and/or damage may result.

NOTE: Take note of position and orientation of the seat post and seat post mounting screw before removing.

NOTE: The seat post has three (3) height settings. If a change in seat height is desired refer to adjusting seat height in this section of the manual.

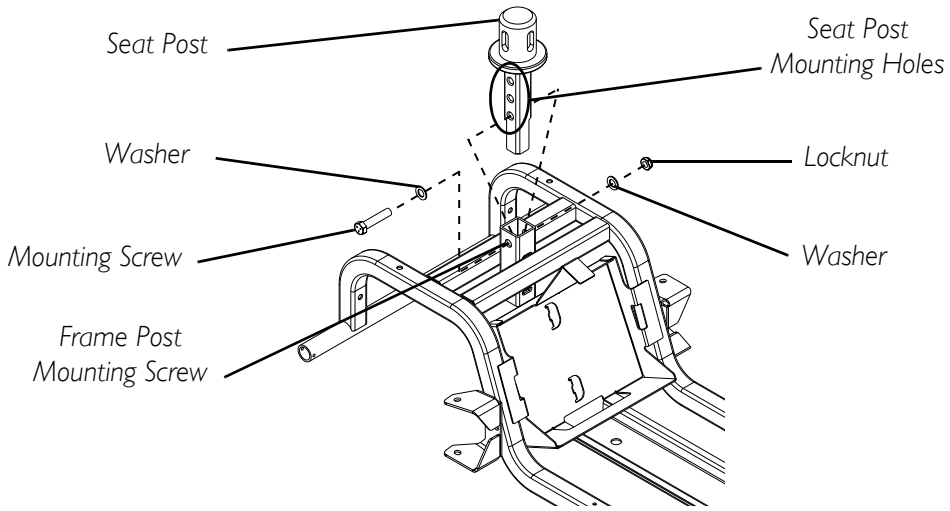
NOTE: For this procedure, refer to FIGURE 7.2.

REMOVING

1. If necessary, remove the seat. Refer to Removing/Installing the Seat on page 34.
2. Remove the mounting screw, two (2) washers and locknut securing the seat post to the frame post (FIGURE 7.2).
3. Lift seat post UP and remove from frame post.

INSTALLING

1. Insert the seat post into the frame post and align the frame post mounting hole with the desired seat post mounting hole. Refer to FIGURE 7.2.
2. Insert mounting screw through both the frame post and the seat post. Install the two (2) washers and locknut onto mounting screw and securely tighten.
3. If necessary, install the seat. Refer to Removing/Installing the Seat on page 34.



NOTE: Seat post on Zoom 300 shown. Seat post on Zoom 400 installs the same way.

FIGURE 7.2 - REMOVING/INSTALLING THE SEAT POST

ADJUSTING SEAT HEIGHT

NOTE: For this procedure, refer to FIGURE 7.2.

1. Remove the seat. Refer to Removing/Installing the Seat on page 34.
2. Remove the mounting screw, two (2) washers and locknut securing the seat post to the frame post.
3. Align the frame post mounting hole with one (1) of three (3) seat post mounting holes to achieve desired seat height (FIGURE 7.2).
4. Insert mounting screw through both the frame tube and the seat post. Install the two (2) washers and locknut onto mounting screw and securely tighten.
5. Install the seat. Refer to Removing/Installing the Seat on page 34.

ADJUSTING SEAT DEPTH

NOTE: For this procedure, refer to FIGURE 7.3.

⚠ WARNING

DO NOT adjust the seat position outside the specifications recommended by the manufacturer.

1. Remove the seat from the scooter. Refer to Removing/Installing the Seat on page 34.
2. Remove the adjustable width arms. Refer to Removing/Installing/Adjusting Arms on page 40.
3. Remove the six (6) mounting screws located under the seat that secure the back assembly to the seat base.

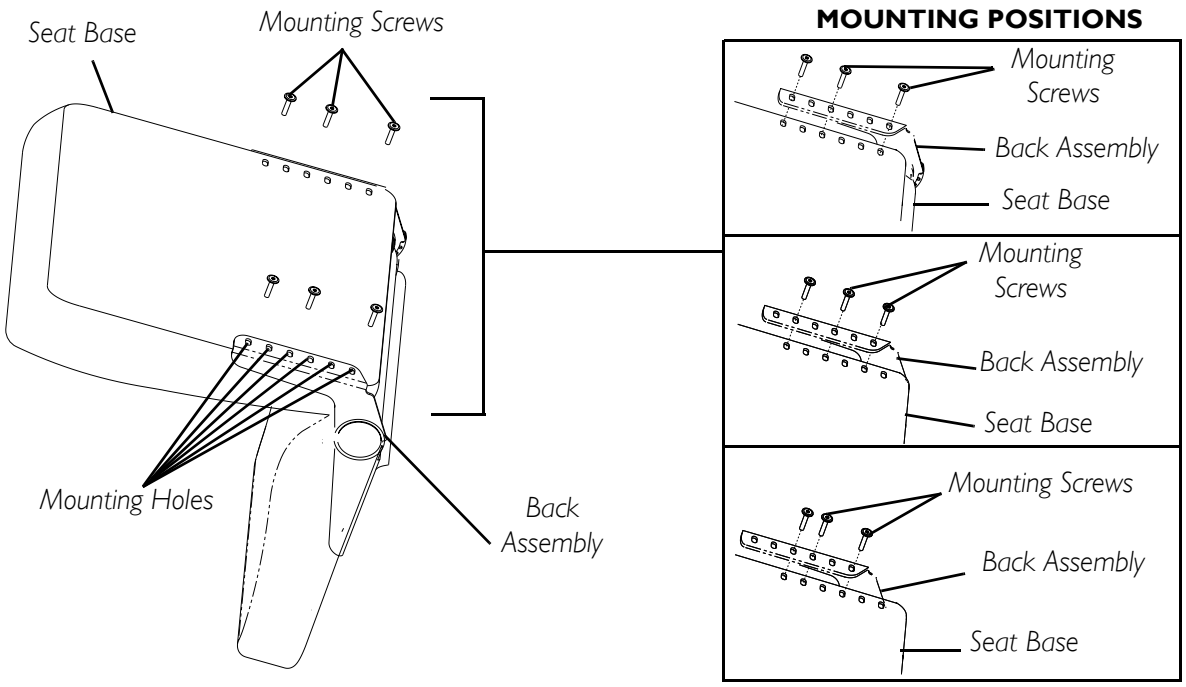


FIGURE 7.3 - ADJUSTING SEAT DEPTH

4. Adjust back assembly to one (1) of three (3) mounting positions (FIGURE 7.3).
5. Reinstall the six (6) mounting screws securing the back assembly to the seat base. Securely tighten.
6. Reinstall the adjustable width arms. Refer to Removing/Installing/Adjusting Arms on page 40.
7. Reinstall the seat assembly onto the scooter. Refer to Removing/Installing the Seat on page 34.

90° SEAT SWIVEL ADJUSTMENT

⚠ WARNING

Ensure that seat is locked into the forward position BEFORE and DURING operation of the scooter. Otherwise, injury to the user and/or damage to the scooter may result.

△ CAUTION

DO NOT use the seat swivel option when accessories are installed (such as safety flag, crutch/cane holder, etc.) and the seat is mounted in lowest height adjustment position. Otherwise, damage to the scooter may occur.

NOTE: For this procedure, refer to FIGURE 7.4.

1. The seat lever is located just beneath the seat on the RIGHT side.
2. Pull the seat lever UP to rotate the seat.

NOTE: The seat locks in position at 90° intervals. The seat is locked when an audible "click" is heard.

3. Rotate the seat to the desired position.
4. Release seat lever to lock seat in desired position.

NOTE: Ensure that the seat is locked in position before operating the scooter.

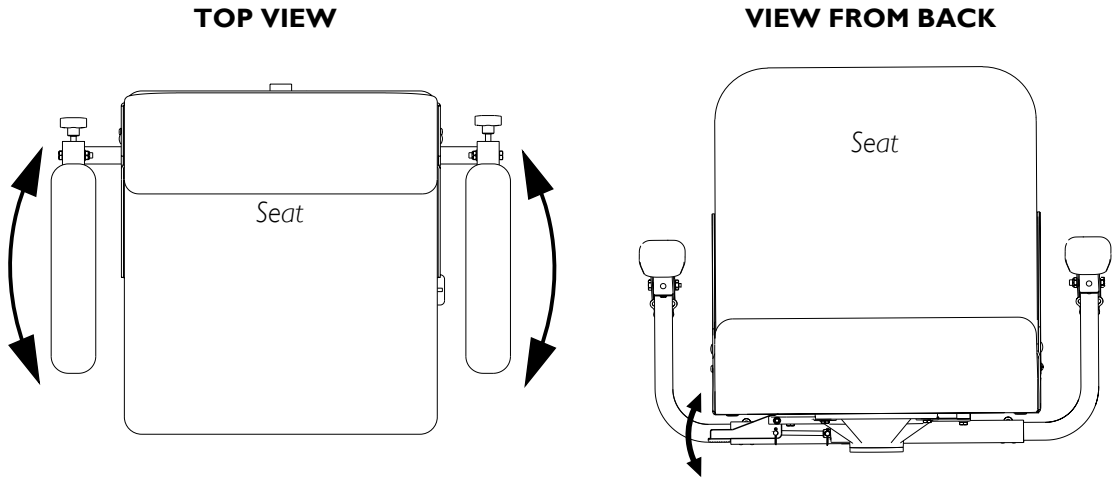


FIGURE 7.4 - 90° SEAT SWIVEL ADJUSTMENT

REMOVING/INSTALLING SEAT POSITIONING STRAP

⚠ WARNING

ALWAYS wear your seat positioning strap.

The seat positioning strap is a positioning belt ONLY. It is not designed for use as a safety device withstanding high stress loads such as auto or aircraft safety belts. If signs of wear appear, belt must be replaced immediately.

NOTE: For this procedure, refer to FIGURE 7.5.

1. Remove the two (2) mounting screws and washers that secure the seat positioning straps to the arm frame.
2. Remove the two (2) halves of the seat positioning strap from the arm frame.
3. Reposition the two (2) new seat positioning strap halves underneath arm frame.
4. Reinstall the two (2) mounting screws and washers that secure the seat positioning straps to the arm frame. Securely tighten.

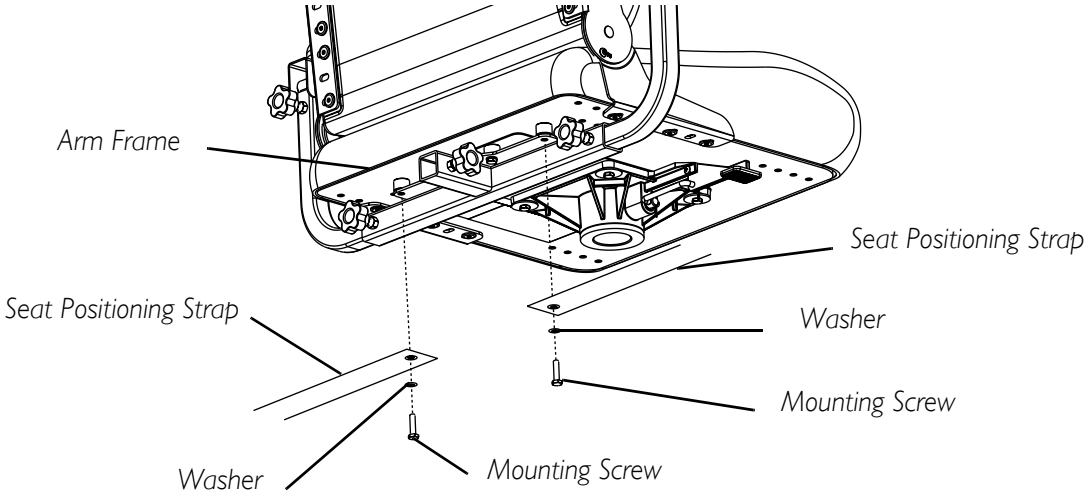


FIGURE 7.5 - REMOVING/INSTALLING SEAT POSITIONING STRAP

SECTION 8—ARMS

⚠ WARNING

After ANY adjustments, repair or service and BEFORE use, make sure all attaching hardware is tightened securely - otherwise injury or damage may result.

Before performing any maintenance, adjustment or service, turn power OFF and remove key from ignition.

REMOVING/INSTALLING/ADJUSTING ARMS

NOTE: For this procedure, refer to FIGURE 8.1.

REMOVING/INSTALLING

NOTE: Reverse this procedure to install the arms.

1. Loosen adjustment knob that secures the arm to the arm support bracket.
2. Remove the adjustable width arm from the arm support bracket.
3. If necessary, repeat STEPS 1-2 to remove the remaining arm.

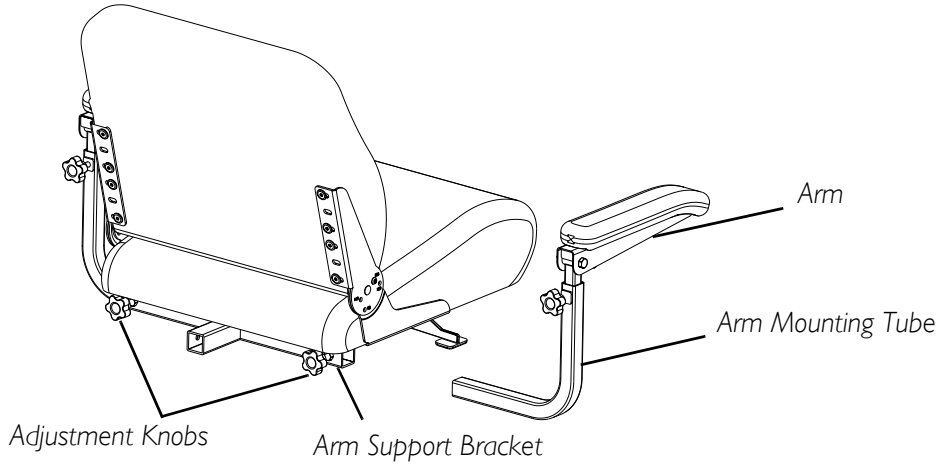


FIGURE 8.1 - REMOVING/INSTALLING/ADJUSTING ARMS

ADJUSTING ARM WIDTH

NOTE: Changing the width of the arms may also effect the overall width of the powered scooter. Use caution when traveling through doorways as the width may have increased.

1. Loosen the adjustment knob located beneath the seat frame on the arm support bracket. Refer to FIGURE 8.1.

△ CAUTION

The arm can be adjusted to a maximum distance of 4½ inches from the inside of the arm to the top of the mounting shaft. If the arm is adjusted beyond the maximum 4½ inches, the arm will fall out.

2. Move arm IN or OUT to the desired position.
3. Retighten adjustment knob securely.
4. Measure distance between back and inside of arm.

NOTE: Both arms should be adjusted to the same distance away from the back.

5. Repeat STEPS 1-4 for opposite arm, setting it at the distance determined in STEP 4.

ADJUSTING ARM ANGLE

NOTE: For this procedure, refer to FIGURE 8.2.

1. Lift-up the arm.
2. Loosen the jam nut (FIGURE 8.2).
3. Adjust the socket screw up or down to the desired arm angle.
4. Tighten the jam nut.
5. To position the opposite arm at the same angle, count the exposed threads after the jam nut has been tightened.
6. Set the opposite arm to position determined in STEP 5.

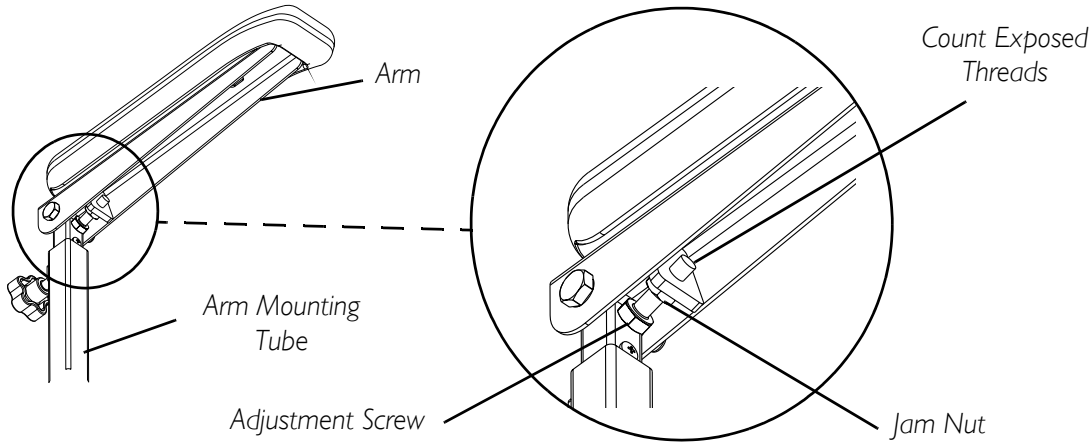


FIGURE 8.2 - ADJUSTING ARM ANGLE

ADJUSTING ARM HEIGHT

NOTE: For this procedure, refer to FIGURE 8.3.

1. Remove the lock knob that secures the arm to the arm mounting tube.
2. Adjust the arm to desired height.

3. Reinstall the lock knob that secures the arm to the arm mounting tube and tighten securely.
4. Repeat STEPS 1-3 for opposite arm, if necessary.

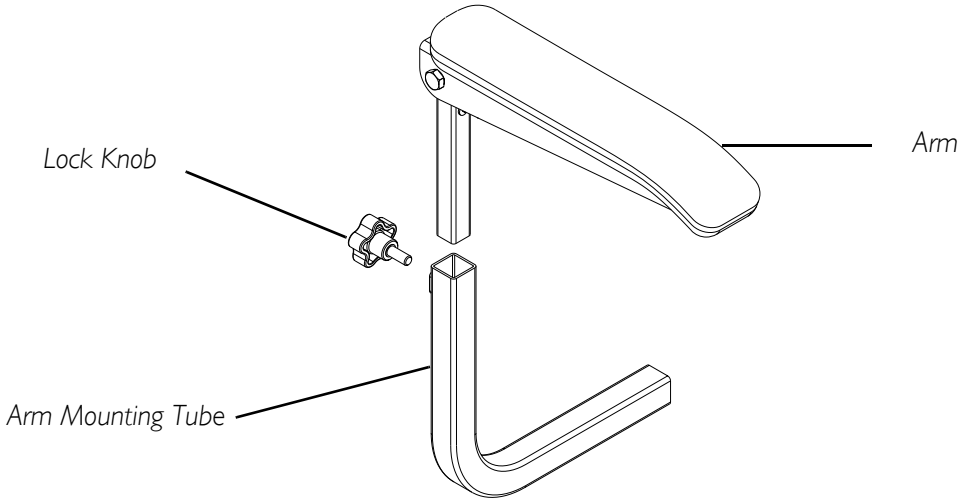


FIGURE 8.3 - ADJUSTING ARM HEIGHT

REPLACING ARMREST PADS

NOTE: For this procedure, refer to FIGURE 8.4.

1. Remove the two (2) mounting screws that secures the armrest pad to arm.
2. Remove the old armrest pad.
3. Install new armrest pad and securely tighten with existing mounting screws.
4. If necessary, repeat STEPS 1-3 to replace the other armrest pad.

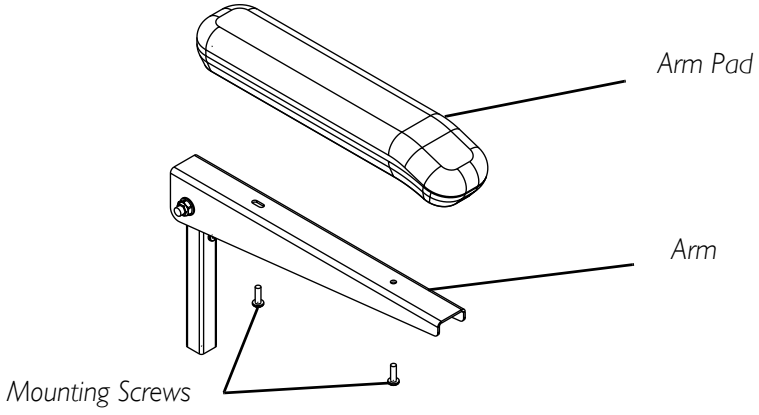


FIGURE 8.4 - REPLACING ARMREST PADS

SECTION 9—TILLER ADJUSTMENT

ADJUSTING THE TILLER ANGLE

⚠ WARNING

Before performing any maintenance, adjustment or service, turn power OFF and remove key from ignition.

Ensure that tiller is properly adjusted before driving the scooter.

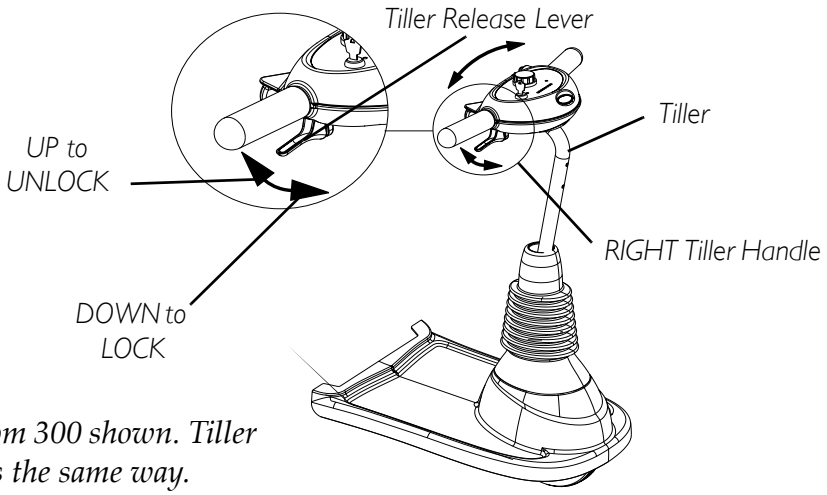
After making ANY tiller angle adjustments and BEFORE use, the tiller MUST be securely locked into position. Otherwise, a fall from the scooter could occur causing bodily injury and/or damage to the scooter. Gently, push/pull against tiller to ensure that the tiller is securely engaged into the adjustment plate.

NOTE: For this procedure, refer to FIGURE 9.1.

NOTE: The powered scooters feature an adjustable tiller. The tiller locks into a position that is most comfortable for you. The tiller can also be folded DOWN for transportation and storage.

1. Pull UP on the tiller release lever located under the RIGHT tiller handle.
2. Push/pull the tiller to the desired angle and release the tiller lever.
3. Gently, push/pull against tiller to ensure that the tiller is securely engaged into the locking mechanism.

NOTE: The tiller is locked in position when an audible "click" is heard.



NOTE: Tiller on Zoom 300 shown. Tiller on Zoom 400 adjusts the same way.

FIGURE 9.1 - ADJUSTING THE TILLER ANGLE

SECTION 10—REAR SHROUD

⚠ WARNING

After ANY adjustments, repair or service and BEFORE use, make sure that all attaching hardware is tightened securely - otherwise injury or damage may result.

Before performing any maintenance, adjustment or service, turn power OFF and remove key from ignition.

REMOVING/INSTALLING THE REAR SHROUD

NOTE: For this procedure, refer to FIGURE 10.1.

REMOVING

1. Remove the seat. Refer to Removing/Installing the Seat on page 34.
2. Lift the rear shroud off of the frame post.

INSTALLING

1. Align tabs on the rear shroud with the slots (not shown in figure) in the front shroud.
2. Place rear shroud on the frame and press down slightly.
3. Install the seat. Refer to Removing/Installing the Seat on page 34.

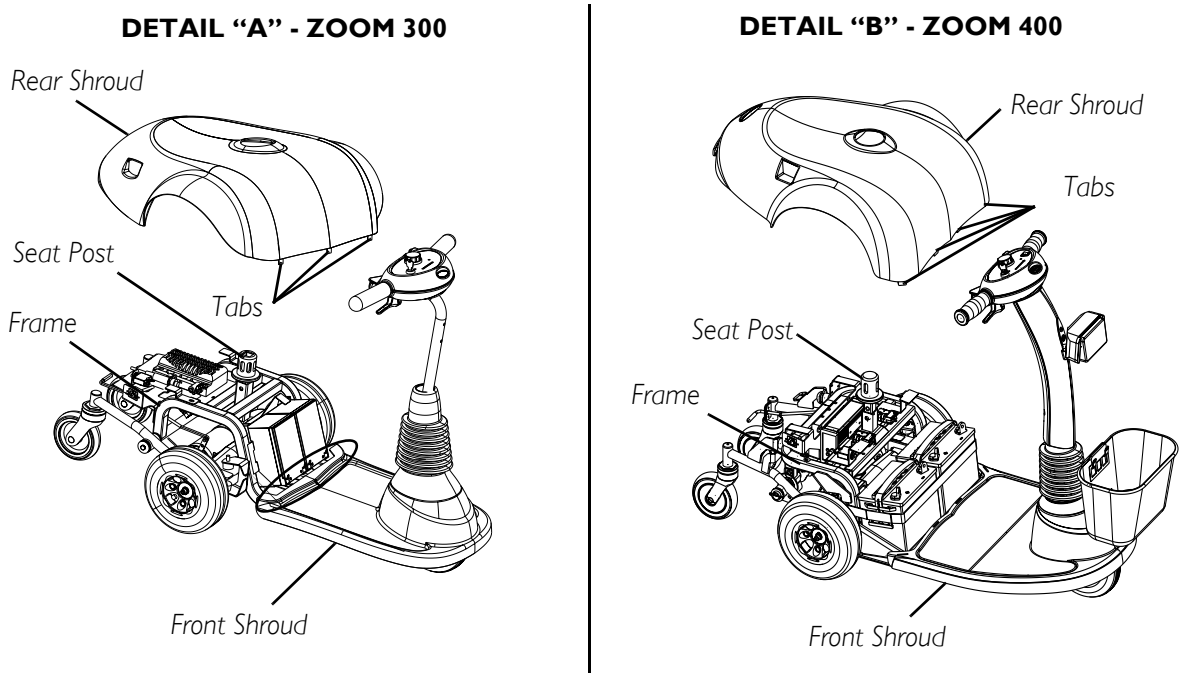


FIGURE 10.1 - REMOVING/INSTALLING THE REAR SHROUD

SECTION 11—WHEELS AND CASTERS

⚠ WARNING

After ANY adjustments, repair or service and BEFORE use, make sure that all attaching hardware is tightened securely - otherwise injury or damage may result.

Before performing any maintenance, adjustment or service, turn power OFF and remove key from ignition.

REMOVING/INSTALLING THE DRIVE WHEELS

NOTE: For this procedure, refer to FIGURE 11.1.

REMOVING

1. Turn power OFF and remove the key from the ignition.
2. Remove the seat. Refer to Removing/Installing the Seat on page 34.
3. Remove the rear shroud. Refer to Removing/Installing the Rear Shroud on page 44.
4. Place the sub-frame up on blocks so that the drive wheels are OFF the ground.
5. Remove the hex nut and washer that secures the drive wheel to the drive shaft.
6. Use a wheel puller if necessary to remove the existing drive wheel assembly from the drive shaft.
7. Remove keystock from drive shaft. Set aside.
8. If necessary, repeat STEPS 1-7 to remove other drive wheel.

INSTALLING

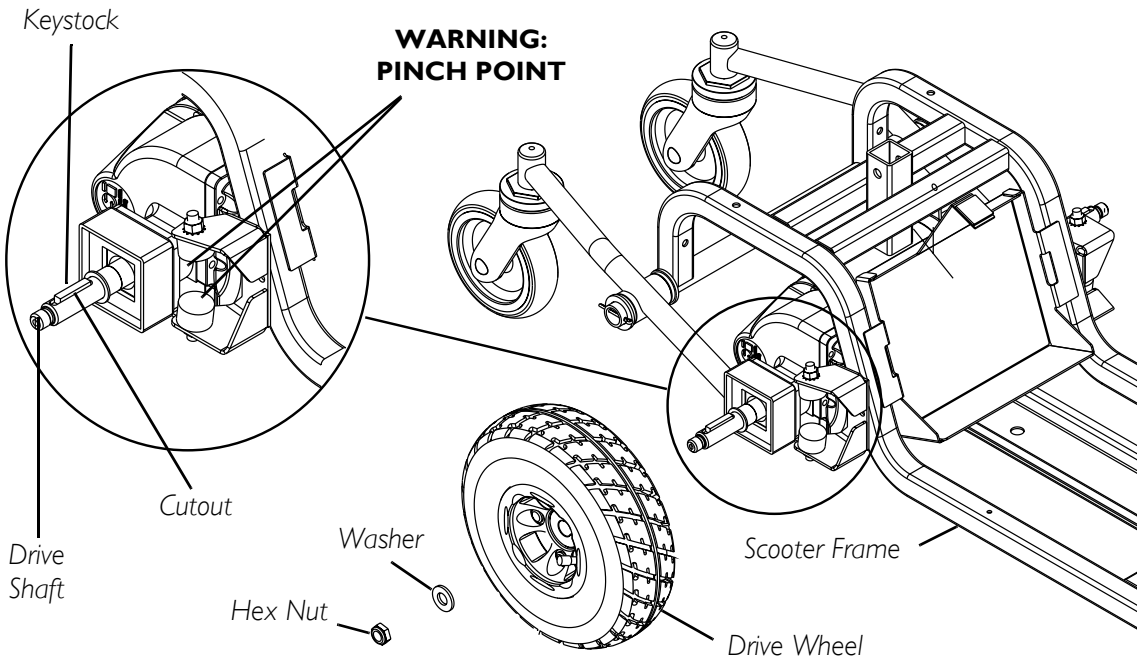
1. Place keystock in cutout on drive shaft as shown in FIGURE 11.1.

NOTE: The keystock in the drive shaft MUST lineup with the cutout in the wheel hub.

NOTE: If necessary, use a rubber hammer to gently tap drive wheel completely into position on the drive shaft.

2. Install the drive wheel onto the drive shaft.
3. Secure wheel to drive shaft using a washer and hex nut. Securely tighten.
4. Repeat STEPS 1-3 to install the other drive wheel.
5. Install the rear shroud. Refer to Removing/Installing the Rear Shroud on page 44.
6. Install the seat. Refer to Removing/Installing the Seat on page 34.

DETAIL "A" - ZOOM 300



DETAIL "B" - ZOOM 400

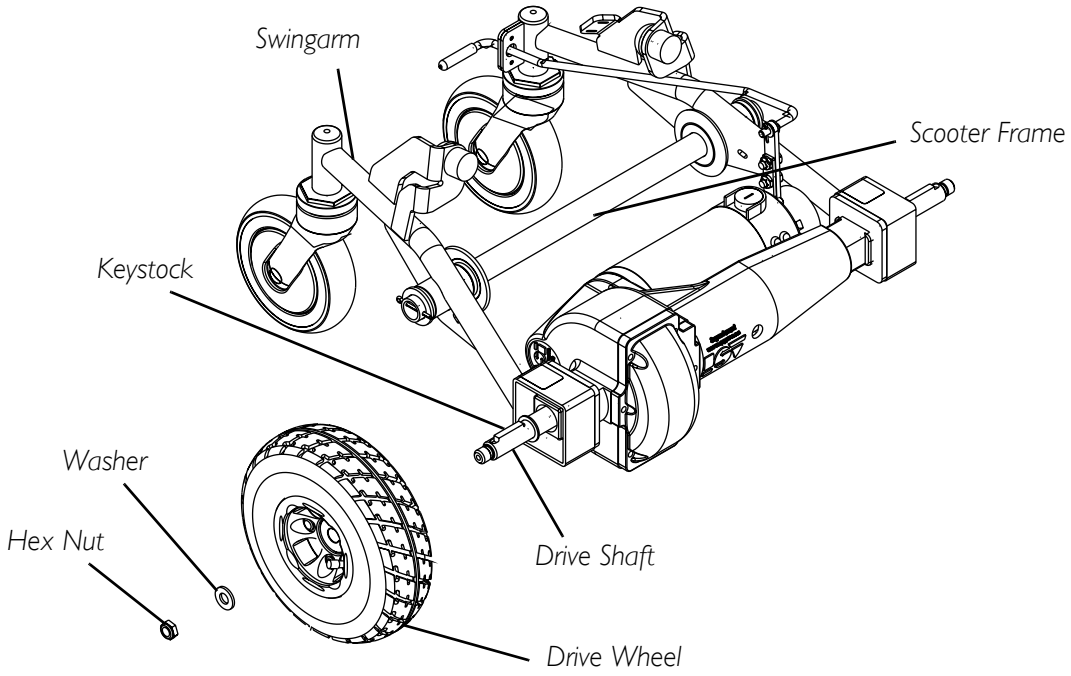


FIGURE 11.1 - REMOVING/INSTALLING THE DRIVE WHEELS

REMOVING/INSTALLING THE FRONT WHEEL

NOTE: Take note of position and orientation of wheel and mounting hardware before removing.

NOTE: For this procedure, refer to FIGURE 11.2.

REMOVING

1. Turn power OFF and remove the key from the ignition.
2. Place the FRONT of the powered scooter UP on blocks so that the FRONT wheel is off the ground.
3. Remove the mounting screw, locknut and two (2) spacers that secure the FRONT wheel to the fork.
4. Remove FRONT wheel from fork.

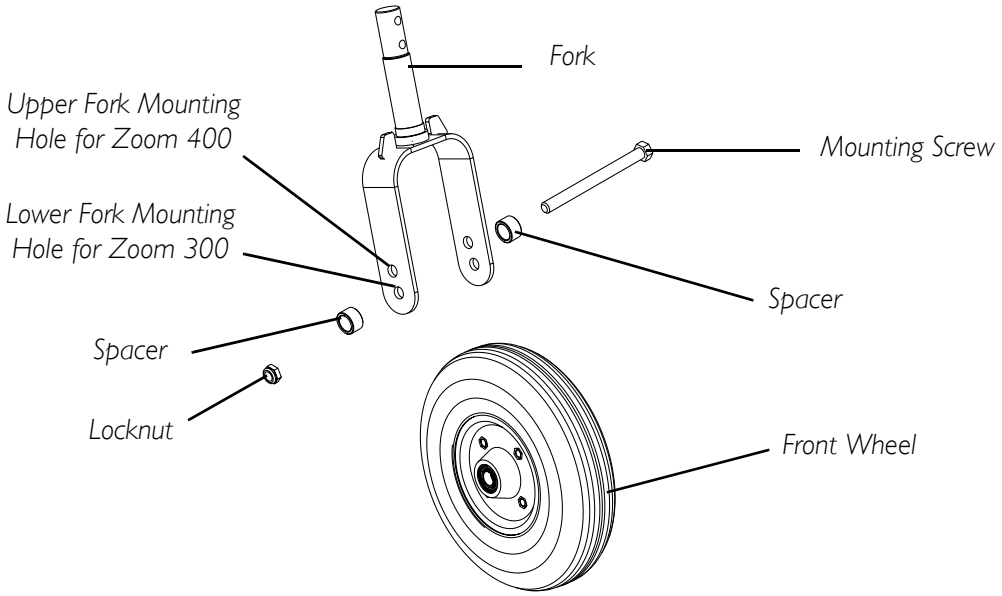


FIGURE 11.2 - REMOVING/INSTALLING THE FRONT WHEEL

INSTALLING

⚠ WARNING

Front wheel MUST be mounted in the correct fork mounting holes (upper mounting holes for the Zoom 400 and lower mounting holes for Zoom 300) - otherwise injury may result.

1. Perform one (1) of the following -
   A. On Zoom 300 - Align front wheel with the lower fork mounting holes.
   B. On Zoom 400 - Align front wheel with the upper fork mounting holes.
2. Using the mounting screw, locknut and two (2) spacers that secure the front wheel to the fork
3. Securely tighten front wheel mounting hardware.

REMOVING/INSTALLING THE CASTER ASSEMBLIES

NOTE: For this procedure, refer to FIGURE 11.3.

REMOVING

1. Apply a wrench to the hex nut on the caster assembly.
2. Turn the hex nut COUNTER-CLOCKWISE to loosen and remove the caster wheel.
3. If necessary, repeat STEPS 1-2 to remove the other caster.

INSTALLING

1. Insert the new caster wheel into the caster housing and turn the hex nut CLOCKWISE to securely tighten the caster wheel in place.

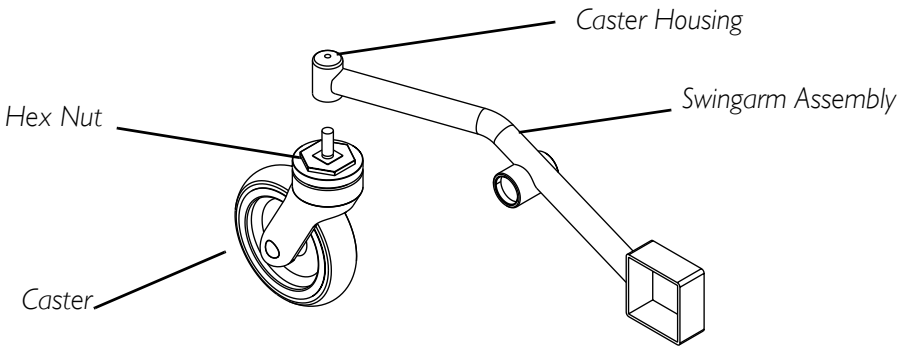


FIGURE 11.3 - REMOVING/INSTALLING THE CASTER ASSEMBLIES

SECTION 12—BATTERIES

⚠ WARNING

Before performing any maintenance adjustment or service, turn power OFF and remove key from ignition.

NEVER allow any of your tools and/or battery cable(s) to contact BOTH battery terminal(s)/post(s) at the same time. An electrical short may occur and serious personal injury or damage may occur.

The use of rubber gloves and chemical goggles and face shield is recommended when working with batteries.

Always use a battery lifting strap when lifting a battery. It is the most convenient method and assures that the battery acid will not spill. It also helps to prolong the life of the battery.

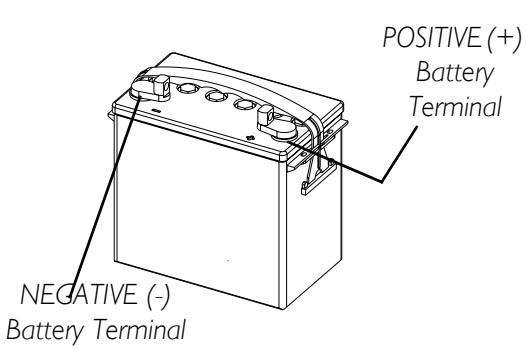
DO NOT tip the batteries. Keep the batteries in an upright position.

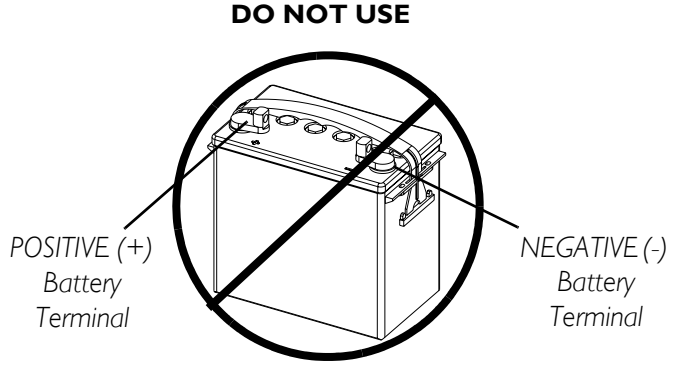
Invacare strongly recommends that battery installation and battery replacement always be done by a qualified technician.

All battery terminals caps (two [2] on the LEFT battery and two [2] on the RIGHT battery) MUST be installed prior to use.

Do not remove fuse or mounting hardware from the POSITIVE (+) RED battery cable/mounting screw.

On Zoom 400 only - Battery terminal configuration shown below MUST be used. Batteries that have the reversed terminal configuration MUST NOT be used - otherwise serious injury or damage may occur.





△ CAUTION

When connecting the battery cables to the batteries, the battery cables MUST be connected to the battery terminals/posts as shown in FIGURE 12.2 for Zoom 300 and FIGURE 12.5 for Zoom 400 - otherwise damage to the battery may result.

For proper battery connection, batteries MUST use post style terminals with mounting holes through the terminal.

NOTE: If there is battery acid on the rear frame or on the sides of the batteries, apply baking soda to these areas to neutralize the battery acid. Before reinstalling the new or existing batteries, clean the baking soda from the battery tray or batteries.

RECOMMENDED BATTERY TYPE

⚠ WARNING

The warranty and performance specifications contained in this manual are based on the use of deep cycle gel cell batteries. Invacare strongly recommends their use as the power source for this unit.

△ CAUTION

Failure to use the correct battery size and/or voltage may cause damage to the powered scooter and give unsatisfactory performance.

Zoom 300 powered scooter uses two (2) 12 volt, 12 Amp-hour (12AH) batteries.

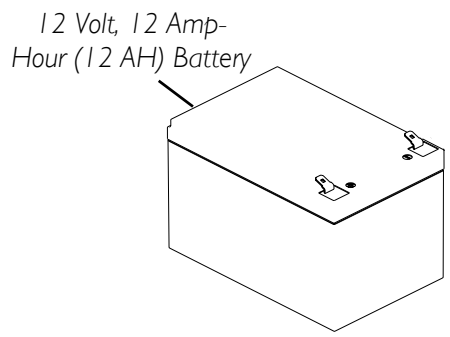
Zoom 400 powered scooter uses two (2) 12 volt, 31 Amp-hour (U1) batteries.

NOTE: Recommended battery type is spill proof and requires no maintenance except routine charging.

NOTE: Charge batteries daily. Do not allow batteries to completely discharge.

NOTE: Invacare recommends that both batteries be replaced if one (1) battery is defective.

DETAIL "A" - BATTERY USED ON ZOOM 300



DETAIL "B" - BATTERY USED ON ZOOM 400

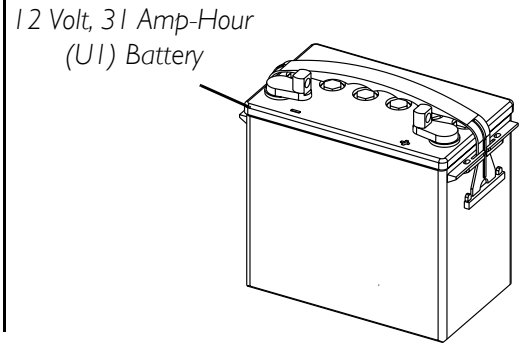


FIGURE 12.1 - RECOMMENDED BATTERY TYPE

REMOVING/INSTALLING THE BATTERIES ON ZOOM 300

NOTE: When removing or installing batteries, ensure that the battery harness connectors completely grip the terminals of the battery. Connection should be tight and secure. Pliers can be used to gently crimp the contact to strengthen the connection.

REMOVING

NOTE: For this procedure, refer to FIGURE 12.2.

1. Place the powered scooter in a well ventilated area where work can be performed without risking damage to carpeting or floor covering.
2. Turn power OFF and remove the key from the ignition.
3. Remove the seat. Refer to Removing/Installing the Seat on page 34.
4. Remove the rear shroud. Refer to Removing/Installing the Rear Shroud on page 44.
5. Pull the hook and loop fastening battery strap apart.
6. Disconnect the RED and BLACK battery connector from the wiring harness assembly (Detail "B" of FIGURE 12.2).
7. Disconnect the wiring harness from the batteries by holding the connectors and pulling them in the following order (Detail "B" of FIGURE 12.2):
   A. NEGATIVE (-) BLACK battery cable from the NEGATIVE (-) battery terminal/post on the LEFT battery.
   B. POSITIVE (+) RED battery cable from POSITIVE (+) battery terminal/post on the RIGHT battery.
   C. WHITE BATTERY CABLE (JUMPER) from the POSITIVE (+) battery terminal/post on the LEFT battery and the NEGATIVE (-) battery terminal/post on the RIGHT battery.
8. Remove the existing batteries from battery tray by lifting the batteries OUT in the direction shown in Detail "A" of FIGURE 12.2.

INSTALLING

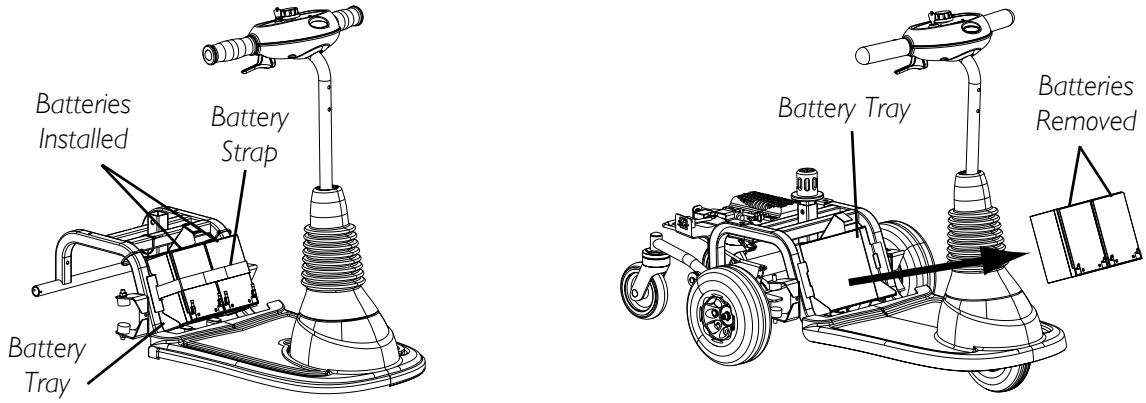
1. Place the powered scooter in a well ventilated area where work can be performed without risking damage to carpeting or floor covering.
2. Turn power OFF and remove the key from the ignition.
3. Remove the seat. Refer to Removing/Installing the Seat on page 34.
4. Remove the rear shroud. Refer to Removing/Installing the Rear Shroud on page 44.
5. Install two (2) batteries into the battery tray.
6. Connect the wiring harness to the new batteries in the following order (Detail "B" of FIGURE 12.2):
   A. NEGATIVE (-) BLACK battery cable to the NEGATIVE (-) battery terminal/post on the LEFT battery.
   B. POSITIVE (+) RED battery cable to POSITIVE (+) battery terminal/post on the RIGHT battery.
   C. WHITE BATTERY CABLE (JUMPER) to the POSITIVE (+) battery terminal/post on the LEFT battery and the NEGATIVE (-) battery terminal/post on the RIGHT battery.

7. Connect the RED and BLACK battery connector to the wiring harness assembly. Tighten securely.
8. Secure batteries in the battery tray using the battery strap (Detail "A" of FIGURE 12.2).
9. Reinstall the rear shroud. Refer to Removing/Installing the Rear Shroud on page 44.
10. Reinstall the seat. Refer to Removing/Installing the Seat on page 34.

NOTE: New batteries MUST be fully charged BEFORE using, otherwise the life of the batteries will be reduced.

11. If necessary, charge the batteries. Refer to Charging the Batteries on page 58.

DETAIL "A" - REMOVING/INSTALLING THE BATTERIES



NOTE: Seat and Rear Shroud not shown for clarity.

DETAIL "B" - BATTERY WIRING HARNESS

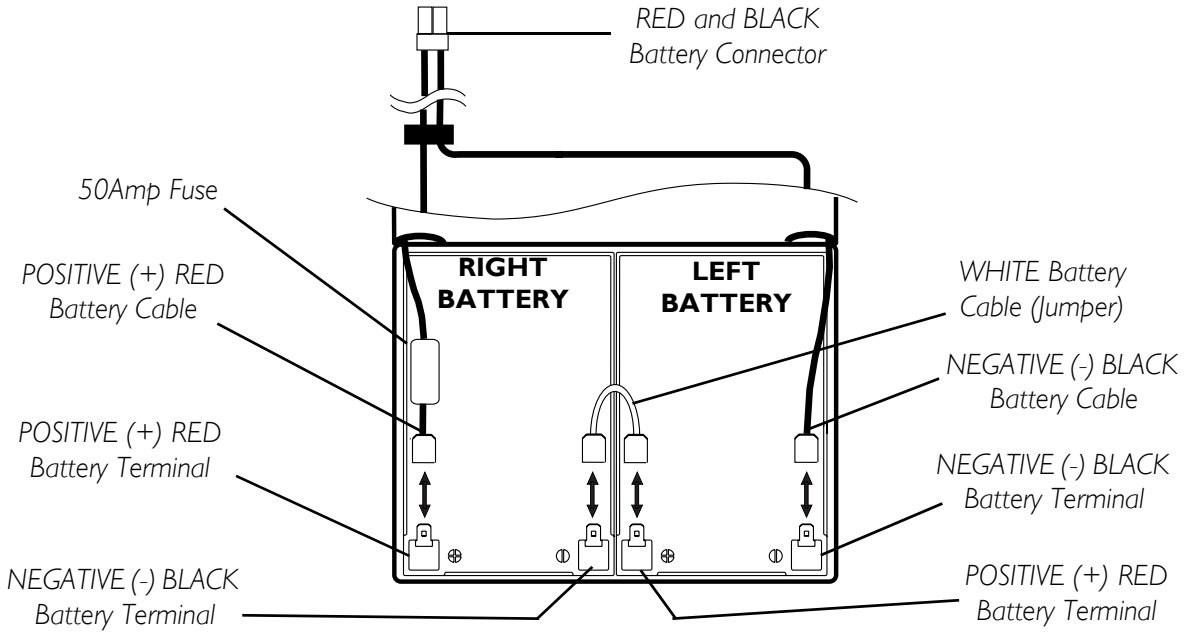

RED and BLACK Battery Connector
50Amp Fuse
POSITIVE (+) RED Battery Cable
POSITIVE (+) RED Battery Terminal
NEGATIVE (-) BLACK Battery Terminal
RIGHT BATTERY
LEFT BATTERY
WHITE Battery Cable (Jumper)
NEGATIVE (-) BLACK Battery Cable
NEGATIVE (-) BLACK Battery Terminal
POSITIVE (+) RED Battery Terminal

FIGURE 12.2 - REMOVING/INSTALLING THE BATTERIES ON ZOOM 300

REMOVING/INSTALLING THE BATTERIES ON ZOOM 400

NOTE: For this procedure, refer to FIGURE 12.2.

REMOVING

1. Place the powered scooter in a well ventilated area where work can be performed without risking damage to carpeting or floor covering.
2. Turn power OFF and remove the key from the ignition.
3. Remove the seat. Refer to Removing/Installing the Seat on page 34.
4. Remove the rear shroud. Refer to Removing/Installing the Rear Shroud on page 44.
5. Disconnect the two (2) Black battery connectors from the wiring harness connectors.
6. Pull the hook and loop fastening battery strap apart.
7. Perform one (1) of the following to remove the battery from the battery tray:
   A. BATTERIES WITH BUILT-IN LIFTING STRAP - Use built in lifting strap to remove the battery from the battery tray.
   B. BATTERIES WITHOUT BUILT-IN LIFTING STRAP - Use a battery lifting strap to remove the battery from the battery tray.

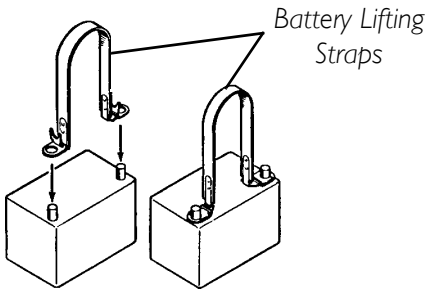
INSTALLING

1. Place the powered scooter in a well ventilated area where work can be performed without risking damage to carpeting or floor covering.
2. Turn power OFF and remove the key from the ignition.
3. Remove the seat. Refer to Removing/Installing the Seat on page 34.
4. Remove the rear shroud. Refer to Removing/Installing the Rear Shroud on page 44.
5. Perform one (1) of the following to position the battery into the battery tray:
   A. BATTERIES WITH BUILT-IN LIFTING STRAP - Use built in lifting strap to position battery onto the battery tray.
   B. BATTERIES WITHOUT BUILT-IN LIFTING STRAP - Use a battery lifting strap to position battery onto battery tray. When battery is in proper position, remove lifting strap.
6. Connect the two (2) BLACK battery connectors to the wiring harness connectors.
7. Secure batteries in the battery tray using the battery strap.
8. Reinstall the rear shroud. Refer to Removing/Installing the Rear Shroud on page 44.
9. Reinstall the seat. Refer to Removing/Installing the Seat on page 34.

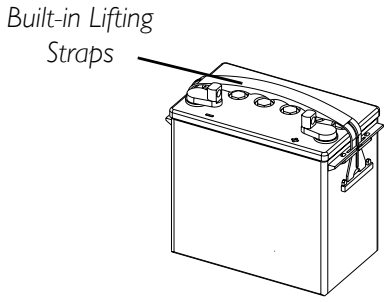
NOTE: New batteries MUST be fully charged BEFORE using, otherwise the life of the batteries will be reduced.

10. If necessary, charge the batteries. Refer to Charging the Batteries on page 58.

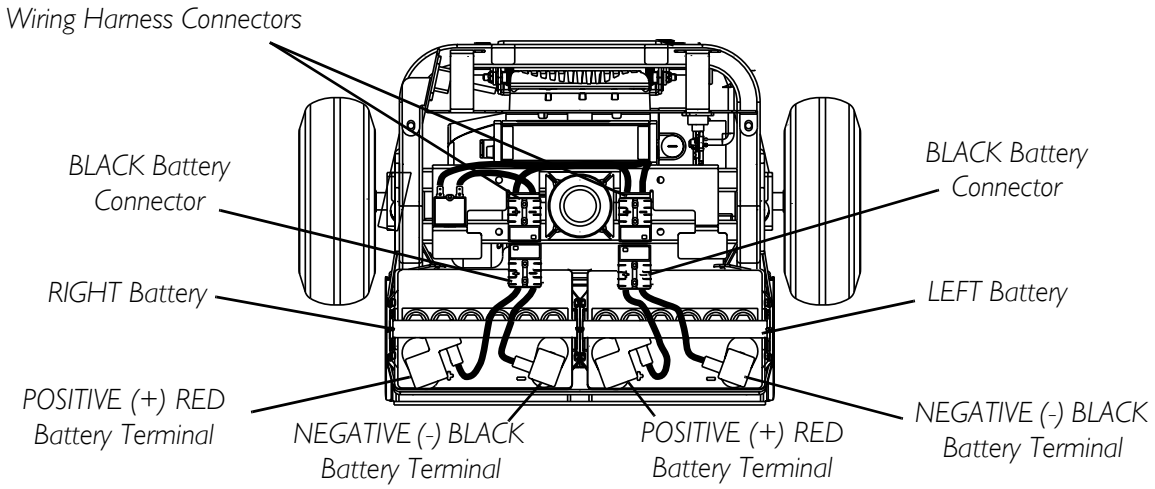
DETAIL "A" - BATTERY LIFTING STRAPS



DETAIL "B" - BUILT-IN LIFTING STRAPS



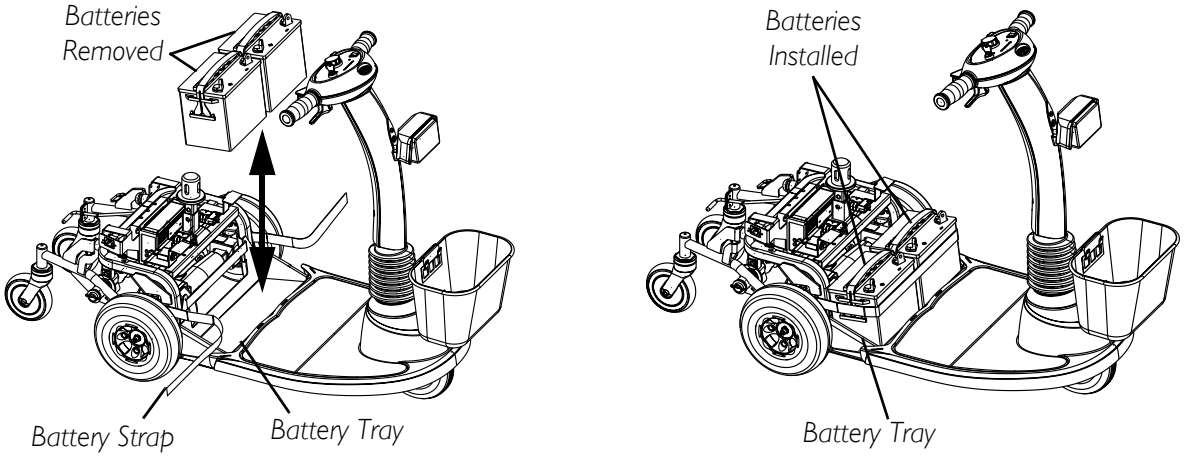
DETAIL "C" - BATTERY WIRING HARNESS



NOTE: NEVER defeat or bypass any fuse. ONLY replace with a fuse of the same rating.

NOTE: Do not remove fuse or mounting hardware from the POSITIVE (+) RED battery cable/ mounting screw.

DETAIL "D" - REMOVING/INSTALLING THE BATTERIES



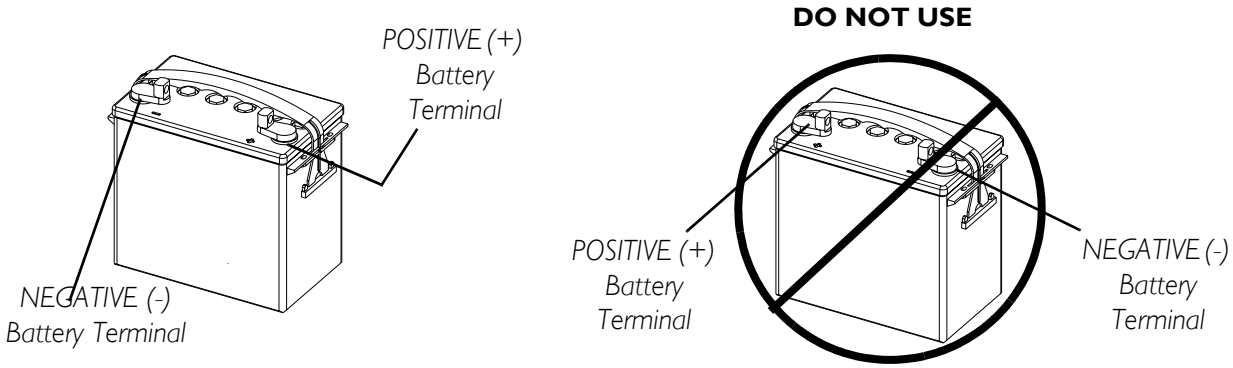
NOTE: Seat and Rear Shroud not shown for clarity.

FIGURE 12.3 - REMOVING/INSTALLING THE BATTERIES ON ZOOM 400

CONNECTING/DISCONNECTING THE BATTERY CABLES ON THE ZOOM 400

⚠ WARNING

On Zoom 400 only - Battery terminal configuration shown below MUST be used. Batteries that have the reversed terminal configuration MUST NOT be used - otherwise serious injury or damage may occur.



NEVER allow any of your tools and/or battery cable(s) to contact BOTH battery terminal(s)/post(s) at the same time. An electrical short may occur and serious personal injury or damage may occur.

The use of rubber gloves and chemical goggles and face shield is recommended when working with batteries.

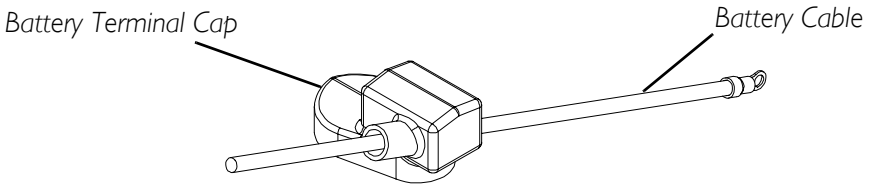
Do not remove fuse or mounting hardware from the POSITIVE (+) RED battery cable/mounting screw.

NEVER defeat or bypass any fuse. ONLY replace with a fuse of the same rating.

NOTE: For this procedure, refer to FIGURE 12.4 and FIGURE 12.5.

CONNECTING

1. Install battery terminal cap(s) onto battery cable(s) as follows (FIGURE 12.4):
   A. RED battery terminal cap onto RED battery cable.
   B. GREY battery terminal cap onto BLACK battery cable.



NOTE: Only battery cable and terminal cap shown. Both caps install in the same manner

FIGURE 12.4 - INSTALLING BATTERY TERMINAL CAPS

⚠ WARNING

When connecting the battery cables to the batteries, the battery cables MUST be connected to the battery terminals/posts as shown in FIGURE 12.5, otherwise damage to the battery cable may result when installing battery terminal caps.

2. Connect battery cable(s) to battery(ies) terminal(s)/post(s):
   A. NEGATIVE (-) BLACK battery cable to NEGATIVE (-) battery terminal/post.
   B. POSITIVE (+) RED battery cable to POSITIVE (+) battery terminal/post.
3. Secure the battery cable(s)/ring terminal(s) to the battery terminal(s)/post(s), BLACK to NEGATIVE (-) and RED to POSITIVE (+), with the provided 1/4-20 x 5/8-inch hex flange screw and hex flange locknut. Securely tighten.
4. Verify all battery cable(s)/ring terminal(s) are correctly installed and securely tightened.
5. Slide terminal cap(s) down battery cable(s) and onto battery clamps.
6. Secure each terminal cap in place with a tie-wrap [use tie-wraps 11-1/2-inches long]. Refer to Detail "A" of FIGURE 12.5.
7. Remove the seat. Refer to Removing/Installing the Seat on page 34.
8. Remove the rear shroud. Refer to Removing/Installing the Rear Shroud on page 44.
9. Position the batteries on the scooter. Refer to Removing/Installing the Batteries on Zoom 400 on page 53.

NOTE: New Battery(ies) MUST be fully charged BEFORE using, otherwise the life of the battery(ies) will be reduced.

10. If necessary, charge the battery(ies). Refer to Charging the Batteries on page 58.
11. Install the rear shroud. Refer to Removing/Installing the Rear Shroud on page 44.
12. Install the seat. Refer to Removing/Installing the Seat on page 34.

DISCONNECTING

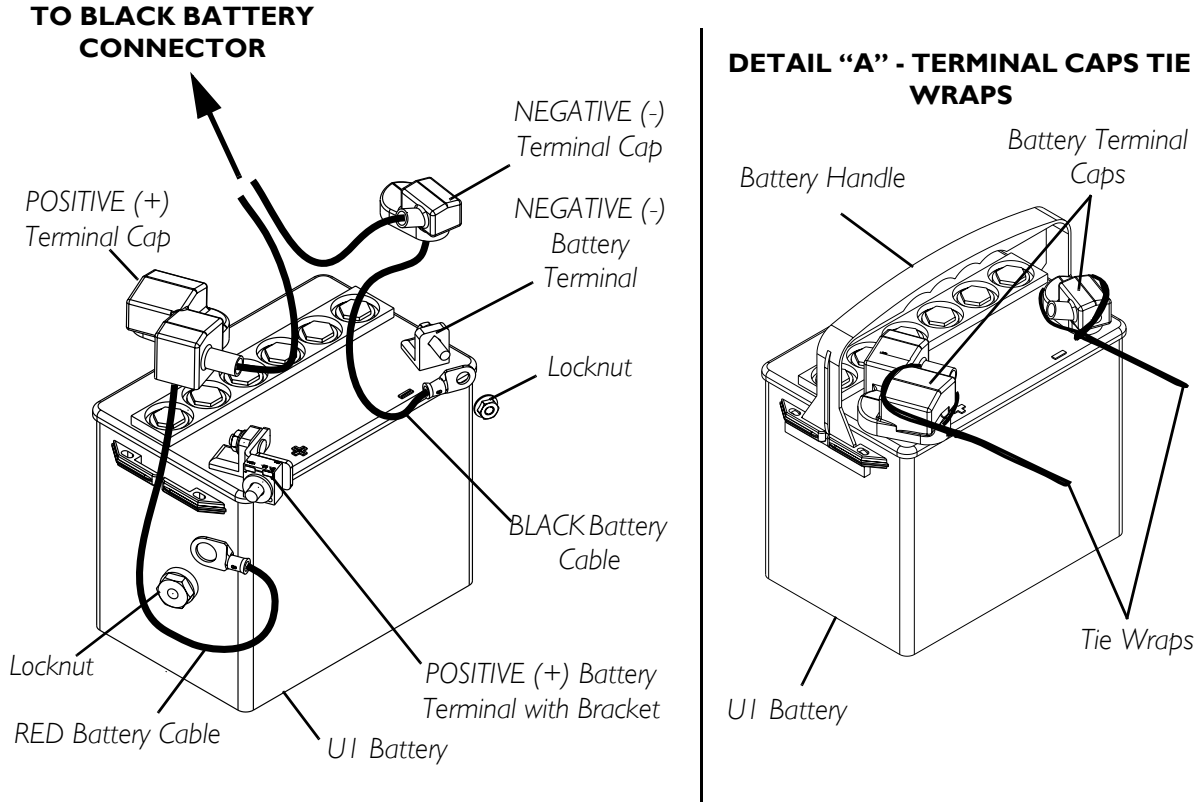
⚠ WARNING

The use of rubber gloves and chemical goggles and face shield is recommended when working with batteries.

NEVER allow any of your tools and/or battery cable(s) to contact BOTH battery terminal(s)/post(s) at the same time. An electrical short may occur and serious personal injury or damage may occur.

1. Remove the seat. Refer to Removing/Installing the Seat on page 34.
2. Remove the rear shroud. Refer to Removing/Installing the Rear Shroud on page 44.
3. Remove the batteries. Refer to Removing/Installing the Batteries on Zoom 400 on page 53.

4. Cut the tie-wrap that secure each the battery terminal cap in place.
5. Slide terminal cap(s) UP on the battery cable(s).
6. Disconnect battery cable(s) from battery(ies) terminal(s)/post(s):
   A. POSITIVE (+) RED battery cable from the POSITIVE (+) battery terminal/post.
   B. NEGATIVE (-) BLACK battery cable from NEGATIVE (-) battery terminal/post.



NOTE: Only battery cable and terminal cap shown. Both caps install in the same manner.

NOTE: Do not remove fuse or mounting hardware from the POSITIVE (+) RED battery cable/ mounting screw.

FIGURE 12.5 - CONNECTING/DISCONNECTING THE BATTERY CABLES ON THE ZOOM 400

CHARGING THE BATTERIES

⚠ WARNING

NEVER attempt to recharge the batteries by attaching cables directly to the battery terminals or clamps.

DO NOT attempt to recharge the batteries and operate the powered scooter at the same time.

△ CAUTION

New batteries MUST be fully charged prior to initial use of the powered scooter.

Always charge new batteries before initial use or battery life will be reduced.

As a general rule, you should recharge your batteries as frequently as possible to assure the longest possible life and to minimize required charging time. Plan to recharge them when you do not anticipate using the powered scooter.

The range per battery charge using recommended batteries should be approximately five (5) to nine (9) hours of typical operation. Extensive use on inclines may substantially reduce per charge mileage.

⚠ WARNING

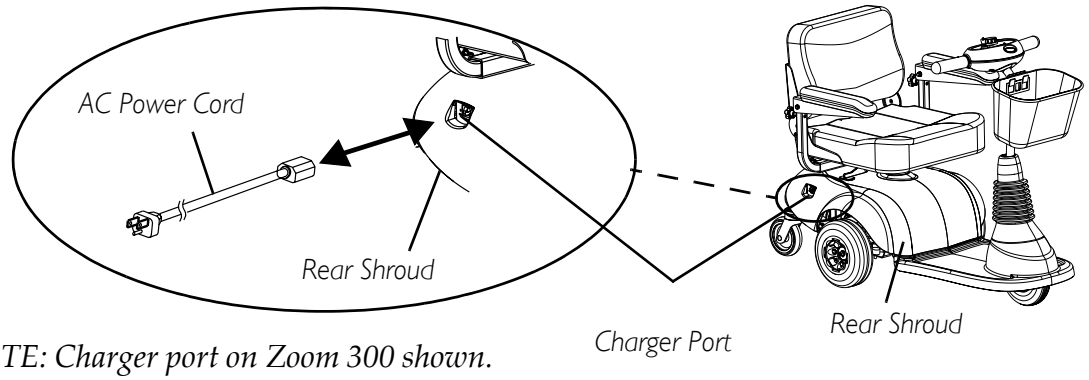
If the circuit breaker trips repeatedly, IMMEDIATELY unplug charger and contact dealer or a qualified technician.

ON-BOARD BATTERY CHARGER

NOTE: The powered scooter is designed with an electrical lockout to prevent it from being driven while the charger is plugged into an outlet.

NOTE: For this procedure, refer to FIGURE 12.6.

1. Plug AC power cord into on-board battery charger port located to the rear shroud.
2. Plug AC power cord into 110-volt wall outlet.
3. Refer to Battery Charger Operation - Charger Indicator Light on Tiller on page 59.



NOTE: Charger port on Zoom 300 shown. Charger port on Zoom 400 is similar.

FIGURE 12.6 - CHARGING THE BATTERIES

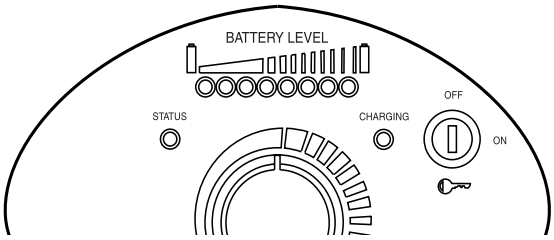
BATTERY CHARGER OPERATION - CHARGER INDICATOR LIGHT ON TILLER

NOTE: If the scooter is turned on while charging, the battery charge indicator will show the batteries at FULL charge. The charger must be unplugged and the powered scooter must be ON to show actual battery charge level.

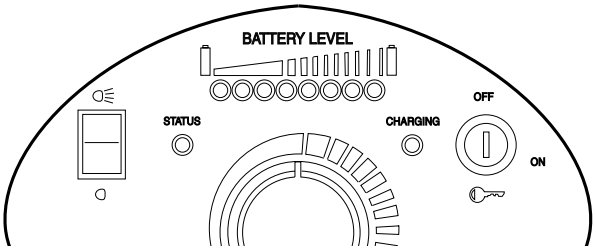
NOTE: For this procedure, refer to FIGURE 12.7.

1. The charging indicator will illuminate Solid RED indicating that the charger is ON.
2. If the charger is plugged in and the charger indicator is OFF, the charger is disconnected. Check that all connections are secure. If Charge LED indicator is still OFF, unplug AC power cord from the on-board battery charger and wall outlet. Contact dealer or a qualified technician.

DETAIL "A" - ZOOM 300 CONTROL PANEL



DETAIL "B" - ZOOM 400 CONTROL PANEL



STATUS INDICATOR	STATUS
Solid GREEN	Normal
Blinking GREEN	Refer to Status Indicator table in Control Panel on page 27.

CHARGING INDICATOR	STATUS
Solid RED	Charger Plugged In
LED Off	Not Charging

FIGURE 12.7 - BATTERY CHARGER OPERATION - CHARGER INDICATOR LIGHT ON TILLER

SECTION 13—TRANSPORTING

⚠ WARNING

After ANY adjustments, repair or service and BEFORE use, make sure that all attaching hardware is tightened securely - otherwise injury or damage may result.

Before performing any maintenance, adjustment or service, turn power OFF and remove key from ignition.

TRANSPORTING THE SCOOTER

NOTE: For this procedure, refer to FIGURE 13.1.

ZOOM 300

DISASSEMBLING

1. If installed on scooter, remove the front basket. Refer to Removing/Installing the Front Basket on page 64.
2. Remove the seat. Refer to Removing/Installing the Seat on page 34.
3. Remove the rear shroud. Refer to Removing/Installing the Rear Shroud on page 44.
4. Remove the batteries. Refer to Removing/Installing the Batteries on Zoom 300 on page 50.
5. Fold tiller down to lowest locked position. Refer to Adjusting the Tiller Angle on page 43.

ASSEMBLING

1. Unfold tiller. Refer to Adjusting the Tiller Angle on page 43.
2. Install the batteries. Refer to Removing/Installing the Batteries on Zoom 300 on page 50.
3. Install the rear shroud. Refer to Removing/Installing the Rear Shroud on page 44.
4. Install the seat. Refer to Removing/Installing the Seat on page 34.
5. If desired, install the front basket. Refer to Removing/Installing the Front Basket on page 64.

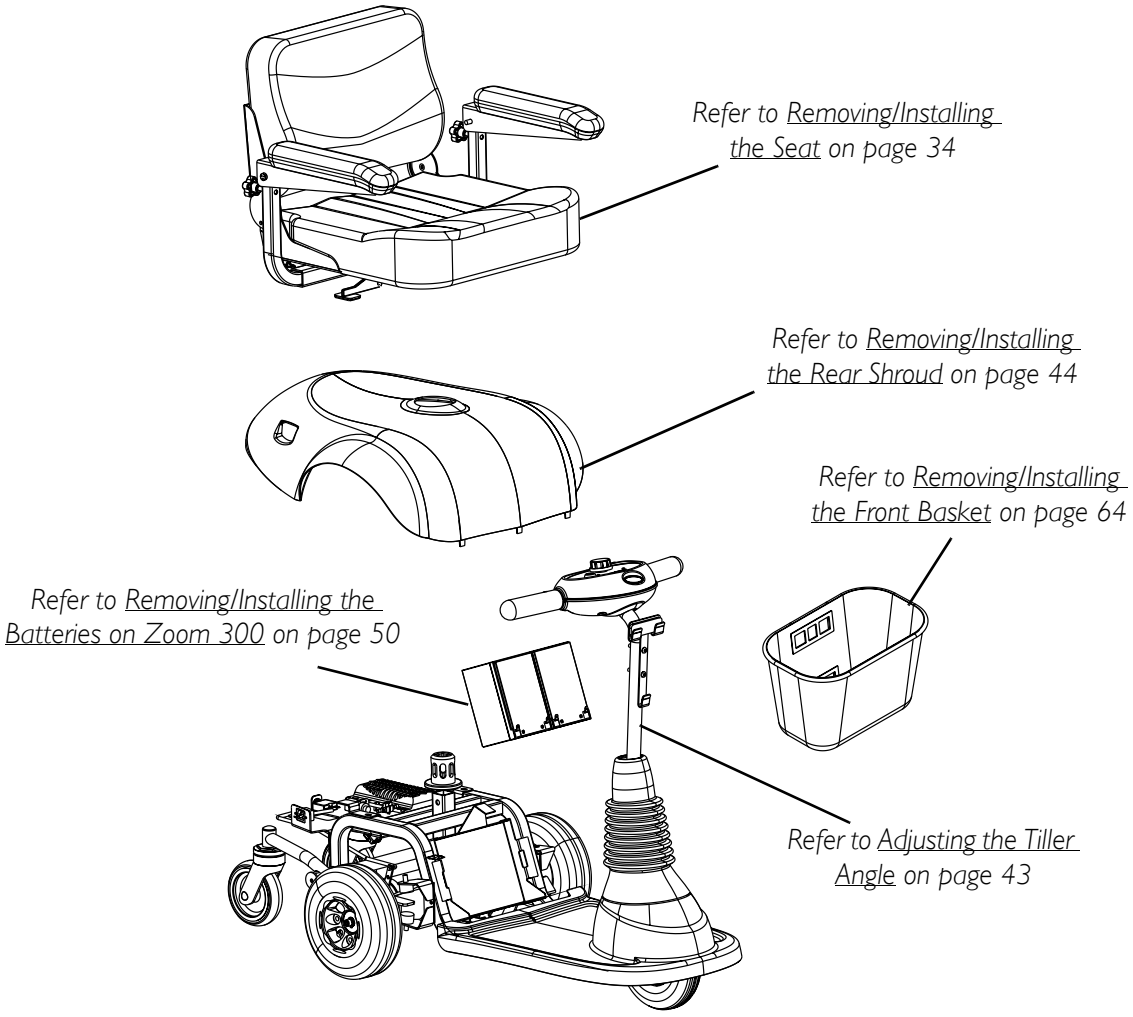

Refer to Removing/Installing the Seat on page 34
Refer to Removing/Installing the Rear Shroud on page 44
Refer to Removing/Installing the Front Basket on page 64
Refer to Removing/Installing the Batteries on Zoom 300 on page 50
Refer to Adjusting the Tiller Angle on page 43

FIGURE 13.1 - TRANSPORTING THE SCOOTER - ZOOM 300

ZOOM 400

NOTE: For this procedure, refer to FIGURE 13.2.

DISASSEMBLING

1. If installed on scooter, remove the front basket. Refer to Removing/Installing the Front Basket on page 64.
2. Remove the seat. Refer to Removing/Installing the Seat on page 34.
3. Remove the rear shroud. Refer to Removing/Installing the Rear Shroud on page 44.
4. Remove the batteries. Refer to Removing/Installing the Batteries on Zoom 400 on page 53.
5. Disconnect the 4-housing motor [located under marker label # **1**] connector from the controller (Detail "B" of FIGURE 13.2).

6. Perform the following to separate the FRONT frame assembly from the REAR frame assembly:
   A. Use the one hand to firmly hold the tiller handle.
   B. Using the other hand, firmly hold the YELLOW frame lock lever [located under marker label # **2**]and pull UP to the Unlocked position as shown in Detail "C" of FIGURE 13.2.

NOTE: The frame lock lever remains in the unlocked position when the front frame assembly is separated from the rear frame assembly.

   C. Lift the front frame assembly so that the mounting brackets disengages from the rear frame assembly as shown in Detail "C" of FIGURE 13.2.
   D. Separate the front frame assembly from the rear frame assembly.
7. Fold tiller down to lowest locked position. Refer to Adjusting the Tiller Angle on page 43.

ASSEMBLING

1. Unfold tiller. Refer to Adjusting the Tiller Angle on page 43.
2. Ensure that the tiller is in the highest LOCKED position.
3. Perform the following to connect the front frame assembly to the rear frame assembly (Detail "C" of FIGURE 13.2):
   A. Use the one hand to firmly hold the tiller handle.
   B. Using the other hand, firmly hold the front frame assembly and align with the REAR frame assembly.

NOTE: The frame lock lever remains in the unlocked position when the front frame assembly is separated from the rear frame assembly.

⚠ WARNING

When reassembling scooter, ensure the frame lock lever is in the LOCKED position securing the FRONT and REAR frame assemblies together. Otherwise, injury and/or damage may result.

   C. Lower the front frame assembly so that the mounting brackets engage with the rear frame assembly.

NOTE: The mounting brackets are engaged when an audible "click" is heard. The YELLOW frame lock lever automatically locks in place.

4. Connect the 4-housing motor connector [located under marker label # **1**] to the controller (Detail "B" of FIGURE 13.2).
5. Install the batteries. Refer to Removing/Installing the Batteries on Zoom 400 on page 53.
6. Install the rear shroud. Refer to Removing/Installing the Rear Shroud on page 44.
7. Install the seat. Refer to Removing/Installing the Seat on page 34.

8. If desired, install the front basket. Refer to Removing/Installing the Front Basket on page 64.

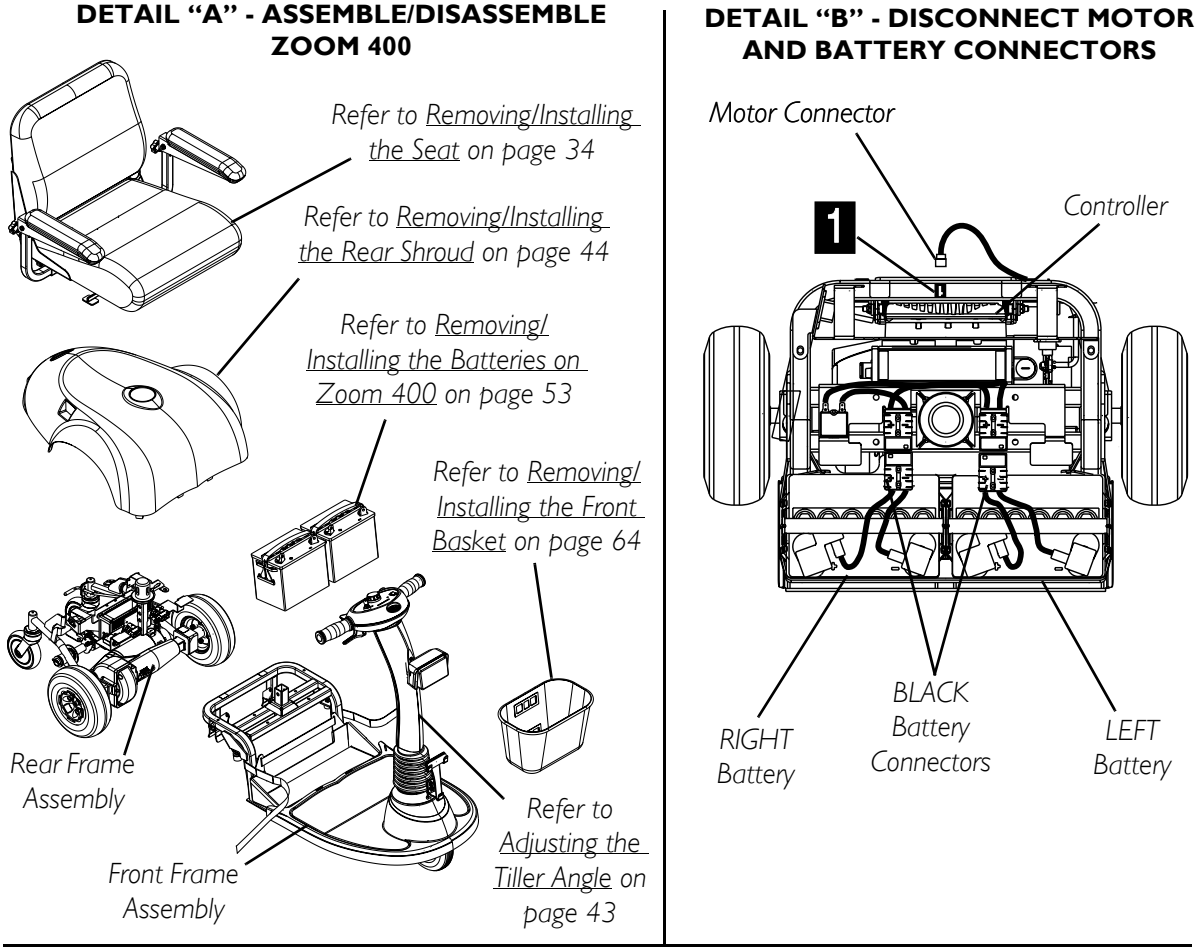

DETAIL "A" - ASSEMBLE/DISASSEMBLE ZOOM 400
Refer to Removing/Installing the Seat on page 34
Refer to Removing/Installing the Rear Shroud on page 44
Refer to Removing/Installing the Batteries on Zoom 400 on page 53
Refer to Removing/Installing the Front Basket on page 64
Rear Frame Assembly
Front Frame Assembly
Refer to Adjusting the Tiller Angle on page 43
DETAIL "B" - DISCONNECT MOTOR AND BATTERY CONNECTORS
Motor Connector
1
Controller
RIGHT Battery
BLACK Battery Connectors
LEFT Battery
DETAIL "C" - REMOVE/INSTALL FRONT FRAME FROM REAR FRAME ASSEMBLY
2
UP to Unlock
Front Frame Assembly
Tiller Handle
DOWN to Lock
Mounting Bracket
Frame Lock Lever
Mounting Bracket
Front Frame Assembly
Rear Frame Assembly

FIGURE 13.2 - TRANSPORTING THE SCOOTER - ZOOM 400

SECTION 14—SCOOTER ACCESSORIES

⚠ WARNING

After ANY adjustments, repair or service and BEFORE use, make sure that all attaching hardware is tightened securely - otherwise injury or damage may result.

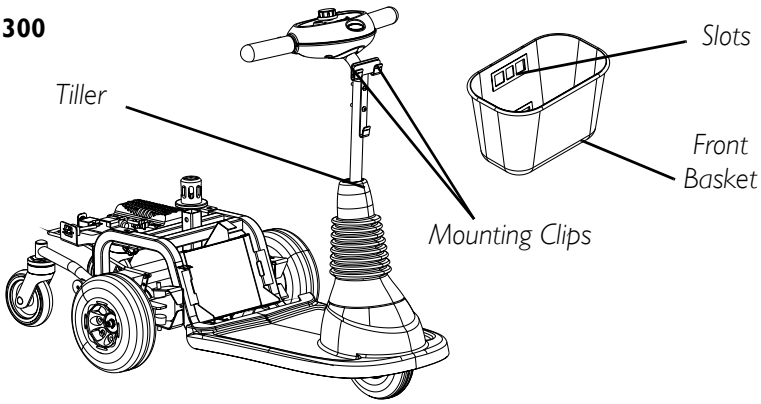
Before performing any maintenance, adjustment or service, turn power OFF and remove key from ignition.

REMOVING/INSTALLING THE FRONT BASKET

NOTE: For this procedure, refer to FIGURE 14.1.

1. To remove: Lift UP on the basket and remove it from the mounting clips.
2. To install:
   A. Align the slots of the basket with the mounting clips on the tiller.
   B. Push DOWN on the basket to secure it in place.

DETAIL "A" - ZOOM 300



DETAIL "B" - ZOOM 400

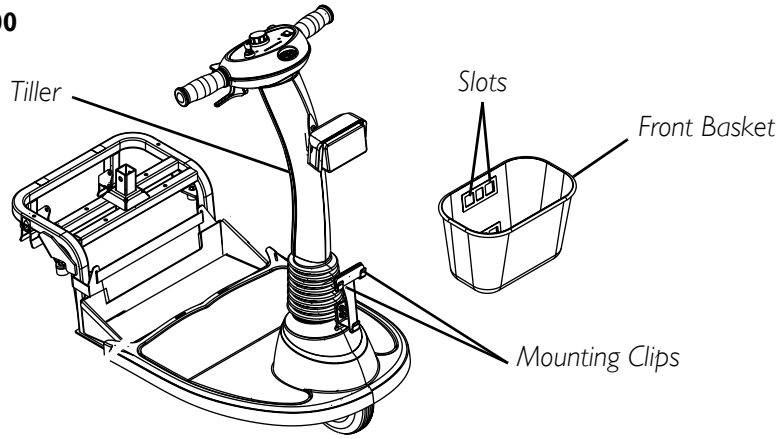


FIGURE 14.1 - REMOVING/INSTALLING THE FRONT BASKET

INSTALLING/REMOVING THE CRUTCH/CANE HOLDER

NOTE: The Crutch/Cane Holder, Safety Flag and Oxygen Holder all install into the accessory tube; ONLY one (1) of these may be installed at a time.

⚠ WARNING

The installation of the crutch/cane holder onto the back of the scooter seat significantly increases the length of the scooter. When turning the scooter or swiveling the scooter seat, it is important to take note of this increased length - otherwise, injury and/or damage to the surrounding property may result.

NOTE: For this procedure, refer to FIGURE 14.2.

INSTALLING

1. Install the crutch/cane holder into the accessory tube located on the back of the seat.
2. Install the mounting knob to secure the crutch/cane holder in place. Securely tighten.
3. Align the slot on the base with the hook on the crutch/cane holder and slide base DOWN into position.

REMOVING

1. Remove the crutch/cane holder from the accessory tube.
2. Remove the mounting knob that secures the crutch/cane holder in place.
3. Remove the crutch/cane holder from the accessory tube.

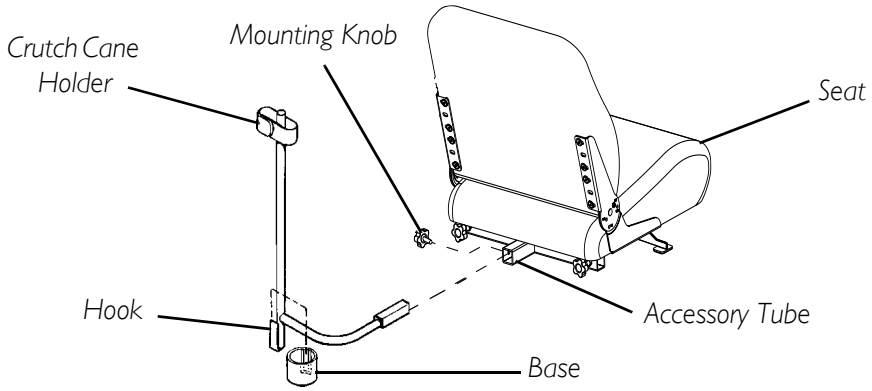


FIGURE 14.2 - INSTALLING/REMOVING THE CRUTCH/CANE HOLDER

INSTALLING/REMOVING THE SAFETY FLAG

NOTE: For this procedure, refer to FIGURE 14.3.

⚠ WARNING

The installation of the safety flag onto the back of the scooter seat significantly increases the length of the scooter. When turning the scooter or swiveling the scooter seat, it is important to take note of this increased length - otherwise, injury and/or damage to the surrounding property may result.

INSTALLING

1. Install the bracket into the accessory tube located on the back of the seat.
2. Install mounting knob to secure the bracket in place. Securely tighten.
3. Install safety flag into bracket.

REMOVING

1. Remove the safety flag from the bracket.
2. Remove the mounting knob that secures the bracket in place.
3. Remove the bracket from the accessory tube located on the back of the seat.

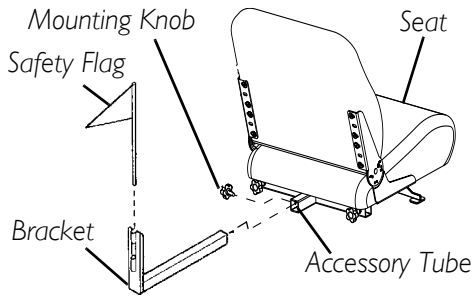


FIGURE 14.3 - INSTALLING/ REMOVING THE SAFETY FLAG

INSTALLING/REMOVING/USING THE WALKER HOLDER

⚠ INSTALLATION WARNINGS

After ANY adjustments, repair or service and BEFORE use, make sure that all attaching hardware is tightened securely.

The installation of the walker holder onto the back of the scooter seat significantly increases the length of the scooter. When turning the scooter or swiveling the scooter seat, it is important to take note of this increased length - otherwise, injury and/or damage to the surrounding property may result.

INSTALLING/REMOVING THE WALKER HOLDER

NOTE: Reverse this procedure to remove the walker holder.

NOTE: For this procedure, refer to FIGURE 14.4.

1. If necessary, loosen but do not remove the mounting knob.
2. Install the walker holder into the accessory tube.
3. Thread the mounting knob into the welded nut on the accessory tube. Securely tighten.

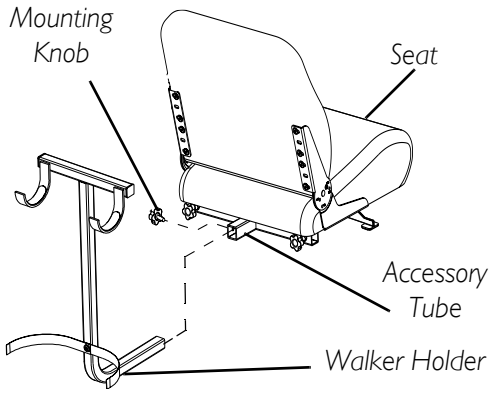


FIGURE 14.4 - INSTALLING/ REMOVING THE WALKER HOLDER

USING THE WALKER HOLDER

NOTE: For this procedure, refer to FIGURE 14.5.

1. Fold walker. Refer to walker instructions.

NOTE: Walker MUST be folded before using walker holder.

2. Hang folded walker on walker holder hooks.
3. Secure walker with hook and loop straps.

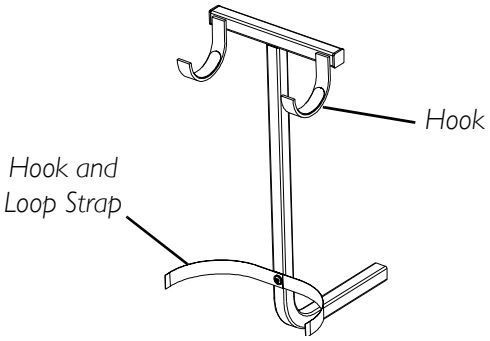


FIGURE 14.5 - USING THE WALKER HOLDER

INSTALLING/REMOVING THE REAR MOUNTED BASKET

NOTE: For this procedure, refer to FIGURE 14.6.

⚠ WARNING

The rear mounted basket is rated for a maximum capacity of ten (10) lbs.

After ANY adjustments, repair or service and BEFORE use, make sure that all attaching hardware is tightened securely.

The installation of the basket and basket bracket onto the back of the scooter seat increases the length of the scooter. When turning the scooter or swiveling the scooter seat, it is important to take note of this increased length - otherwise, injury and/or damage to surrounding property may occur.

INSTALLING

1. If necessary, loosen but do not remove the mounting knob.
2. Install the basket bracket into the accessory tube.
3. Thread the mounting knob into the welded nut on the accessory tube. Securely tighten.
4. Align the mounting clips on the bracket with the slots on the basket and slide the basket DOWN securely into position.

REMOVING

1. Remove the basket from the bracket.
2. Loosen the mounting knob.
3. Remove the basket bracket from the accessory tube.
4. Tighten the mounting knob.

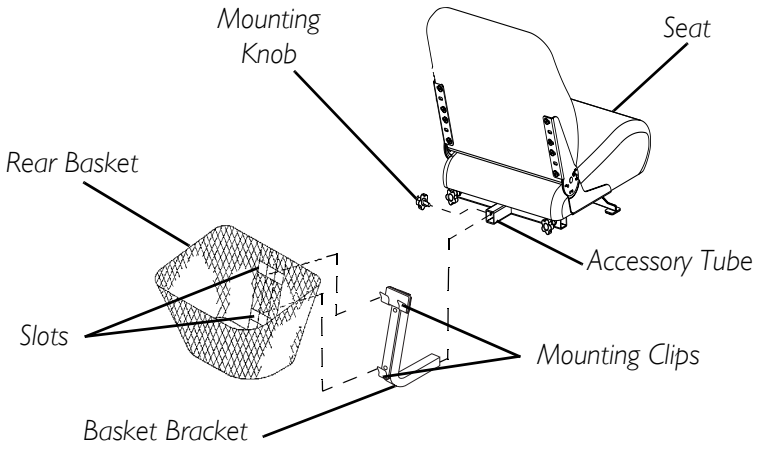


FIGURE 14.6 - INSTALLING/REMOVING THE REAR MOUNTED BASKET

NOTES

NOTES

LIMITED WARRANTY

PLEASE NOTE: THE WARRANTY BELOW HAS BEEN DRAFTED TO COMPLY WITH FEDERAL LAW APPLICABLE TO PRODUCTS MANUFACTURED AFTER JULY 4, 1975.

This warranty is extended only to the original purchaser/user of our products.

This warranty gives you specific legal rights and you may also have other legal rights which vary from state to state.

Invacare warrants this product to be free from defects in materials and workmanship for a period of eighteen (18) months on electrical and transaxle and three (3) years on frame from date of purchase. If within such warranty period any such product shall be proven to be defective, such product shall be repaired or replaced at Invacare's option. This warranty does not include any labor or shipping charges incurred in replacement part installation or repair of any such product. Invacare's sole obligation and your exclusive remedy under this warranty shall be limited to such repair and/or replacement.

For warranty service, please contact the dealer from whom you purchased your Invacare product. In the event you do not receive satisfactory warranty service, please write directly to Invacare at the address on the bottom of the back cover. Provide dealer's name address, date of purchase, indicate nature of the defect and, if the product is serialized, indicate the serial number. Do not return products to our factory without our prior consent.

LIMITATIONS AND EXCLUSIONS: THE FOREGOING WARRANTY SHALL NOT APPLY TO SERIAL NUMBERED PRODUCTS IF THE SERIAL NUMBER HAS BEEN REMOVED OR DEFACED, PRODUCTS SUBJECT TO NEGLIGENCE, ACCIDENT, IMPROPER OPERATION, MAINTENANCE OR STORAGE, COMMERCIAL OR INSTITUTIONAL USE, PRODUCTS MODIFIED WITHOUT INVACARE'S EXPRESS WRITTEN CONSENT INCLUDING, BUT NOT LIMITED TO, MODIFICATION THROUGH THE USE OF UNAUTHORIZED PARTS OR ATTACHMENTS; PRODUCTS DAMAGED BY REASON OF REPAIRS MADE TO ANY COMPONENT WITHOUT THE SPECIFIC CONSENT OF INVACARE, OR TO A PRODUCT DAMAGED BY CIRCUMSTANCES BEYOND INVACARE'S CONTROL, AND SUCH EVALUATION WILL BE SOLELY DETERMINED BY INVACARE. THE WARRANTY SHALL NOT APPLY TO PROBLEMS ARISING FROM NORMAL WEAR OR FAILURE TO ADHERE TO THESE INSTRUCTIONS. A CHANGE IN OPERATING NOISE, PARTICULARLY RELATIVE TO MOTORS AND GEARBOXES DOES NOT CONSTITUTE A FAILURE. ALL SUCH DEVICES WILL EXHIBIT A CHANGE IN OPERATING NOISE DUE TO AGING.

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THIS WARRANTY SHALL BE EXTENDED TO COMPLY WITH STATE/PROVINCIAL LAWS AND REQUIREMENTS.

Invacare Corporation www.invacare.com

USA
One Invacare Way
Elyria, Ohio USA
44036-2125
800-333-6900

Canada
570 Matheson Blvd E Unit 8
Mississaugua Ontario
L4Z 4G4 Canada
800-668-5324

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